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# A Survey of Elementary English Education

BY

E. B. R. PRIDEAUX, M.A., D.Sc.

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## Author's Preface

During the delivery of a course of lectures at the Liverpool University upon English Elementary Education, it appeared to the author that there was no book which gave a brief, yet sufficient outline of the history of our system in all its aspects. The present work is an attempt to fill this gap; to trace the origins and to connect them with the development during the nineteenth century as well as with present tendencies. The aim has been throughout to present the salient facts and statistics, and at the same time to avoid such multiplicity of detail as would prevent a busy man from gaining a quick and easy grasp of the subject.

A bibliography has been added of books dealing with allied subjects, and also of those which treat the history more exhaustively, for the convenience of those who require a guide to further reading.

The author desires to acknowledge his indebtedness to Professor Campagnac for opportunities of research and kind encouragement, and to him and Mr. J. H. Gettins for valuable information.

E. B. R. PRIDEAUX.

## Foreword by Professor Campagnac

Dr. Prideaux's book needs no foreword from me; but I gladly take the opportunity which he allows me of saying what good service it may render to students of the progress of education in England. Designed, I understand, to meet the needs of candidates for some of the examinations set up to test the knowledge of persons who attempt the History of Education as part of their work in preparation for the career of teachers, it will be welcomed, not by them alone, but by others who for other reasons may desire acquaintance with the subject. The patient collection and orderly arrangement of facts, and the clear and accurate statement of them, are preliminary to the formation of any theories which can justly claim attention, and of any conduct or practical scheme which deserves credit. They are more: they are the foundations without which theories and practical schemes totter and crumble. The reserve and modesty with which Dr. Prideaux treats his material will not hide from the intelligent reader the valuable nature of the contribution which he has made both to our knowledge and to our work, whether we are concerned with teaching or with organization. He has brought to his task unusual gifts of penetration and insight long trained in exact scientific research, and the quality, still more rare, of a humour so subtle as at times to become elusive, and so shrewd as to need no underlining or other marks of emphasis.

The book will, I have no doubt, well fulfil the purpose which the writer had in mind when he wrote it; and I expect with confidence that it will appeal to a larger number of readers than those for whom it was in the first instance intended.

E. T. CAMPAGNAC.

THE UNIVERSITY, LIVERPOOL  
*December, 1913*

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# Contents

CHAP	Page
I THE ORIGINS OF ELEMENTARY EDUCATION AND ITS PROGRESS UP TO 1860 - - - - -	9
II. THE PROGRESS OF EDUCATION FROM 1860 TO 1870	50
III. FINANCIAL AND ADMINISTRATIVE CHANGES FROM 1870 ONWARDS - - - - -	60
IV. THE TRAINING OF TEACHERS - - - - -	86
V. THE GROWTH OF THE CURRICULUM - - - - -	102
VI. THE SEPARATE SUBJECTS - - - - -	120
VII THE TREND OF SOCIOLOGICAL THEORY AND ITS INFLUENCE UPON EDUCATION - - - - -	161
APPENDIX - - - - -	185
SELECT BIBLIOGRAPHY - - - - -	198
INDEX - - - - -	203



# Elementary Education

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## CHAPTER I

### THE ORIGINS OF ELEMENTARY EDUCATION AND ITS PROGRESS UP TO 1860

The development of elementary education during the last century is, of course, intimately connected with the great movements which have made the "wonderful century" stand out as the most memorable in the world's history.

The French Revolution and Napoleonic Wars, the revival of religious enthusiasm, the political emancipation, the industrial revolution, and the great advance in scientific achievement must all be taken into account in any endeavour to trace the progress of elementary education. That progress varied greatly in the different countries of Europe. In Germany the public declaration of 1794 that "all schools and universities are State institutions" had been followed, some fifteen years later, by the organization of a complete national system. In England the change from a heterogeneous collection of mediaeval grammar schools, charity

and Sunday schools, to an organized public system occupied the greater part of the century.

The effect of the Napoleonic Wars was essentially different in the two countries. The humiliation of the French invasion had aroused in the German states the feeling of a common nationality. The cause of their defeat was recognized to be "the helpless dependence of the people, their absolute subordination to authority, and the coldness and indifference towards their State and country which naturally results therefrom". Among the remedies applied, not the least important was the foundation of a new national system of education.

In England the case was far different. The English had not been led by the sharp lesson of an invasion to doubt the efficacy of their mediaeval schools. Although suffering to some extent from the economic exhaustion of a long war, they had also profited by the misfortunes of their neighbours, and had obtained a good start in that new use of power and material resources which is known as the "industrial revolution". The moral was not lost that it was the staying power of a flourishing commerce which had enabled them to hold their own. The "nation of shopkeepers" were not at all abashed by French taunts, rather they were confirmed in their belief in the importance of economic productiveness and trade. So arose the idea that it was of more importance for the children of the nation to contribute to its material wealth than to be at school. In the cruel years which followed, when the Continental nations began to develop

their own resources and to compete against England, the sufferings of the poor became very great. Riots broke out and were repressed with the utmost severity. A vast uncared-for population was growing up whose only *raison d'être* was that it worked in the mills. In vain did humanitarians like Robert Owen protest against the view that absolute neglect of children was rightly followed by savage repression when the natural consequences of that neglect appeared. "Shall yet another year pass," he asks, "in which crime shall be forced on the infant, who, ten, twenty, or thirty years hence, shall suffer *death* for being taught that crime?"

It thus came about that, in this country, the necessity of education was based upon reasons of law and order rather than of economic efficiency. The misery and the ignorance of the neglected children seemed to be closely allied to one another, and to present a suitable object for private philanthropy. The work of alleviating the one and informing the other was willingly undertaken by the Sunday and charity schools which had already arisen in connection with the Wesleyan movement and the evangelical revival in the Church of England. The task of "irradiating with intelligence, that is to say with order, arrangement, and all blessedness, the chaotic unintelligent" was thus left to these semi-private bodies and to the endowed schools which were irregularly distributed over the land. For an understanding of the lines upon which English education has developed, it

is necessary then to bear in mind the aims and previous history of these organizations.

### **The Origins of Elementary Education**

The established churches which have so carefully guarded the light of knowledge through the ages have had a perfectly clear conception of the kind of instruction which was to be given to the lay population. The aim was to produce in the first place a good churchman, and consequently also, in the second place, a good citizen.

It is known that the schools which had been founded after the Norman Conquest in all the principal towns were chiefly in connection with the monasteries. After the dissolution of these, many of the schools attached were lost to the nation through the diversion of endowments to quite other purposes. Some, however, of the endowments of chantries, colleges, and free chapels were applied to the foundation of new grammar schools, and the number of these was increased by the great activity of private benefactors before and during the reign of Elizabeth. These private benefactions were also dominated by the religious idea. As Foster Watson says: "It is doubtful whether any statutes of a school could be produced in the period 1518-59 which do not explicitly name some aspect of religion as the cause which led the founder to establish his school".

Many of these schools exist to the present day as the famous old foundations known to us as



grammar schools, or "public" schools. From their statutes it appears that they had been originally provided for the benefit of "pauperes et indigentes scholares", but there soon appear to have been difficulties in the way of the fulfilment of this condition. In the first place the education given presupposed the acquirement of reading and writing; and secondly the predominantly classical character of the education<sup>1</sup> was quite sufficient to deter any "poor scholars" who did not intend to enter the learned professions. In other words, however trifling the result, the aim of these schools was to give a humanistic culture far above the elementary plane. So it came about that on the one hand preparatory instruction was lacking, and on the other no secondary education of a non-classical character was given. The second of these needs began to be met by the endowment of non-classical schools before 1700.

The following account of the growth of elementary instruction in connection with the grammar schools is taken from Foster Watson's *English Grammar Schools to 1660*: "The duties of the chantry priests were expressed in an injunction of Edward VI, 1547:—'That all chantry priests shall exercise themselves in teaching youth to read and write, and bring them up in good manners and other virtuous exercises'."

In 1548 came the Act which abolished all chantries. "The obligation on the clergy to teach children to read and write ceased. The tradition

<sup>1</sup> See Locke, *Thoughts on Education*.

remained. . . . But the withdrawal of the clergy from teaching in the elementary schools did not bring about the introduction of a professional class of elementary teachers. It led, however, to the establishment of a distinct class of elementary schools, and more frequently still to special provision for 'petties' (or younger pupils), in or out of the grammar school."

This provision was made chiefly in four ways:—

(1) The elementary instruction required was given by the grammar master himself.

(2) The teaching of the petties devolved upon advanced pupils. Thus, in the statutes of the Rivington Grammar School, 1566, it is stated that: "If the number of pettys that learn to read be more than the usher can well teach, some of the eldest scholars by course may be appointed by the master and governors to help him".

(3) An elementary master was substituted for the "eldest scholar". In Christ's Hospital, founded in 1552, there were "two 'petty' schoolmasters for the Petties' A. B. C., each £2, 13s. 4d.". But one of these in 1570 was appointed barber as well as schoolmaster, and it was found that his teaching duties were neglected in consequence.

(4) The separate master for elementary instruction was placed in a separate school, and the elementary school was thus entirely differentiated from the grammar school. This was rendered necessary by the increasing standard of attainment demanded on entrance to the grammar school. One of the statutes of the Alford (Lincs) Grammar School,

1599, reads as follows: "There shall none be admitted into this Grammar School before he can read perfectly and write legibly".

To further supply this want private schools had arisen, and the vicious idea that anyone would do for the work of teaching was already widespread in 1596. In this year Edmund Coote wrote his book *The English Schoolmaster*, with the aid of which he states: "Thou mayest sit at thy shop-board, at thy books or thy needle and never hinder any work to hear thy scholars". Charles Hoole, in 1660, says: "The Petty School . . . deserveth more encouragement should be given to the teachers of it, than that it should be left as a work for poor women, or others whose necessities compel them to undertake it as a mere shelter for beggary" In such early practices it is interesting to notice the beginnings of the "common day school" (see p. 37).

The right of the Established Church to supervise all education was earlier questioned in the case of elementary schools than in that of grammar schools. The laity had no share in the management of the latter until after the Reformation, when, in the words of Sir Kay Shuttleworth, "the congregation was substituted for the monk, and the joint action of the clergy and the laity for the exclusive control of the priest". The conditions of teaching were restricted by the conformity legislation which had begun in 1562 and which culminated in the Act of Uniformity in 1662. By these laws all schoolmasters and tutors were bound to declare their conformity to the Liturgy, and

were placed under the constant supervision of the bishops, who were to see that they and their charges attended church regularly. The non-classical schools were proved to be exempt from these regulations by several test cases, including Bate's case in 1670, Douse's in 1701, and Cox's in 1700. In these it was decided that to conduct an elementary school without a bishop's licence was not a civil offence, and that there existed no ecclesiastical control over schools other than grammar schools. These liberties were confirmed by an Act of 1714, while in 1779 Dissenters, and in 1790 Roman Catholics, were permitted to teach.

The relief afforded by the earlier test cases was according to de Montmorency, the leading cause of the remarkable increase in school endowment recorded between 1660 and 1730. Contemporaneously with this movement for endowments which should be free and unfettered by the dead hand of ecclesiastical founders, it is possible to trace another of even greater importance to the subsequent development of elementary education in England. The voluntary or charity schools no less than the new Nonconformist foundations owed their coming partly to an attempt to escape from excessive episcopal supervision, and partly no doubt to the desire to supply the deficiencies in the numerous poor elementary schools of the country which enjoyed no private foundation. No region was as neglected as Wales, and the pressing need of the Welsh, combined with their religiousness, made the principality the centre of the efforts.

Thomas Gouge, a London clergyman, ejected from his living by the Act of Uniformity in 1662, resolved to devote his life and two-thirds of his remaining income (£150 per annum) to missionary work among the Welsh. Having ascertained the numbers of those who were willing to learn, he engaged teachers, who, for 1*d.* to 2*d.* a week for each scholar, taught them to read and write and repeat the Catechism in English. He himself preached wherever he could gain admittance. His labours were, however, not highly appreciated either by the Welsh bishops or the Nonconformist leaders, one of whom, Stephen Hughes, protested against the drawing of Welsh children to English schools. His main work, however, was to supply the Welsh with religious books in their own language. A preliminary search through London and Oxford revealed less than twenty copies of the Welsh Bible. This want was met by the preparation of an 8vo edition of 8000 copies, of which 1000 were distributed gratis to the poor, and the remainder sold at 4*s* each. The trust which was formed to continue this work contains the names of Tillotson, Whichcote, Simon Ford, W. Durham, Stillingfleet, J. Menton, Gouge, Matthew Poole, and T. Firmin.

Of the success of the charity schools conducted in England from 1698 under the auspices of the Society for Promoting Christian Knowledge mention will be made later.

In Wales Gouge's schools appear to have ceased with the death of their founder in 1681. In 1730 they were revived by another missionary preacher,

Griffith Jones. He, like his predecessor, was not in high favour with the resident clergy, but travelled through Wales, preaching where he was allowed. He made a practice of catechizing his congregation before Sacrament Sunday, and soon met with the difficulty that the people could not read. In 1730 he established his first charity school, with no funds except those derived from a small offertory. The scheme rapidly grew, and was much assisted by English subscriptions.

The Society for Promoting Christian Knowledge, which had by this time become a large organization, helped him by donations of Bibles and other books, and in 1746 published a special edition of the Welsh Bible and Prayer Book. The "circulating schools", as they were called, were carried on both in the day and evening, and in them adults as well as children were instructed by itinerant teachers. These schoolmasters were religious men chosen without regard to denomination. At the time of Griffith Jones's death in 1760 150,000 persons had thus been instructed. The schools were continued by Mrs. Bevan, a liberal benefactress, but after her death in 1779 the will which bequeathed her estate to the cause was disputed by her heirs and thrown into Chancery, and voluntary education in Wales was discontinued for another thirty years.

In England the eighteenth century had seen the rise and development of the Society for Promoting Christian Knowledge and the Sunday school organization. The objects of the former society

may best be understood by means of a quotation from the original rules.

In the constitution as first established, it was resolved "that Mr. Justice Hook do draw up an instrument of Insurance and a Form of Subscription for the Contributors in their respective Parishes". The form of subscription recognized "that Christian Virtue can grow from no other root than Christian Principles". The Church Catechism, the Whole Duty of Man, and parts of the Scriptures were consequently to be read by children whose parents were not able to afford them any education. The subscribers guaranteed a certain sum payable yearly during pleasure in quarterly instalments. The society's agents reported the amount which the subscriptions had reached. Forty pounds per annum was considered sufficient in the case of a school at St. Andrews, Holborn. When the amount was not sufficient, the society might charge their insurance fund with the deficiency. Food and clothing were often provided. Thus we find in the case of Holms Chappel in Cheshire: "Four pounds per annum settled for a Master to teach ten poor boys of that Chappelry, or the Parish of Sandbach. The Benefactor also allows 10*s*. in Bread to the Children every Lord's Day, and a Bible to each Boy when he can Read. He has also made a Provision for buying them Blue Coats and Caps." The schoolmaster, though evidently not highly paid, had to possess certain qualifications. It was necessary that he should be a member of the Church of England, and "of a

sober Life and Conversation, and not under the Age of twenty-five Years. One that hath a good government of himself and Passions. One of a good genius for Teaching. One who keeps good Orders in his Family."

Towards the end of the eighteenth century several dissenting charity schools were founded as substitutes for those of the Established Church, since these, in spite of the injunctions of the bishops, were so conducted as to cultivate a dislike of the Protestant succession. There were soon between 1000 and 2000 children at these Nonconformist, as against 40,000 at the Church, charity schools.

One other important direction taken by voluntary effort must be noticed here. The Sunday schools, initiated by Robert Raikes in 1780-5, soon became very popular, rapidly spread over the country, and were the most congenial, and often the only means of education, especially for the workers in the neglected towns of the north. They differed in several important particulars from those of the present day. The teachers were drawn, if possible, from those who kept daily schools. According to Mrs. Trimmer, in *The Economy of Charity*, 1787, the teachers did not always welcome the additional day's work, which lasted from about 8 a.m. to 6 p.m., with intervals for attendance at church. The stipend was at the rate of about 1s. per Sunday for twenty pupils; coals and candles might be added in the winter. The funds were provided by a subscription in each parish. The teachers were assisted by "visitors", as the volun-



tary teachers were called, and with their help one master could deal with forty or fifty children. The unpaid work of these visitors, in many cases the wife or daughters of the clergyman, was often of a high order, and was so much appreciated that by the beginning of the nineteenth century there were probably nearly half a million pupils, and in 1834 a million and a half, with 160,000 voluntary teachers. In Manchester at that time much secular as well as religious instruction was imparted, not only on Sundays, but also on two evenings in the week.

### The School Societies

It is important to realize the methods and scope of the charity and Sunday school organizations at this time, since they gave the precedent and made the way easy for the two great school societies which immediately succeeded them, and which have exercised a paramount influence over the form of elementary education through the greater part of the nineteenth century. These societies, the National Society for Promoting the Education of the Poor in the Principles of the Established Church, and the British and Foreign School Society, owed their origin to the energy and enterprise of two remarkable men, Andrew Bell and Joseph Lancaster.

Dr Andrew Bell was a clergyman of the Established Church who had practised in Madras, where he had a school, a system whereby the hearing of

<sup>1</sup>De Montmorency, *Progress of Education*.

routine lessons and the maintenance of order among younger children were handed over to children chosen from an upper class. This plan commended itself on account of its economy, and promised mechanical efficiency in dealing with the ever-increasing child population, for which there was at the time practically no educational opportunities. Dr. Bell's proposals were eagerly taken up, funds were subscribed, while he himself toured the country establishing schools and explaining the system.

In 1811 the National School Society was formed, and by 1815 it had already 564 schools with over 100,000 scholars. These schools were usually free. They were strictly denominational; the children received, as a matter of course, instruction in the Bible and Liturgy, and were obliged to attend church service. The society was supported by private subscriptions (which by 1870 had amounted to some £860,000), and expended these in the form of grants varying from £20 to £300 each. As early as 1815 the society had a central school in Baldwin's Gardens. This was worked as a model of the system and as a training centre for teachers. It was removed to Westminster in 1832.

The British and Foreign Schools had their origin in one started by Joseph Lancaster at his father's house in St. George's Fields, 1798. Notwithstanding that a fee of £1, 1s. a year was charged, together with 6s. for books, the schools were soon filled to overflowing. Shortly afterwards fees were abolished, but a fee of about 2d. a week was re-

introduced in 1816.<sup>1</sup> In 1803 the monitorial system was adopted here also. In 1808 Joseph Fox, a rich Quaker, paid Lancaster's debts and started the Royal Lancastrian Institution, on behalf of which Lancaster travelled and founded schools. By 1813 there were about 150 in existence. The name British and Foreign Society was adopted in 1814. In the schools of this society the Scriptures were read daily, but no Catechism or peculiar religious tenets were taught, and the children were free to attend any place of worship. The model school was established at the Borough Road, and has now become the Training College at Isleworth.

It is certain that the monitorial system, according to which both the National and British Schools were conducted, was not originated by either Bell or Lancaster. Monitors have been employed to assist in the maintenance of order in the endowed schools since early times (see p. 14), while teaching monitors are described by John Brinsley in his *Ludus literarius or the Grammar Schoole* in 1612.

The number of children in a society's school was usually 150-300. Thus in a typical school attached to St. John's, Hoxton, there was one teacher to 292 boys. The assistants were two monitors between 12 and 14 years of age, four between 11 and 12, and seven under 11.

Horace Mann, the Massachusetts educator, during his visit to England in 1844, on one occasion saw

<sup>1</sup> It is interesting to note that the introduction of this fee into the Borough Road School in 1827 not only brought in £200, but increased the attendance by 10 per cent.

1000 pupils in one Lancasterian schoolroom, while, according to a witness who gave evidence before the Commission of 1838, one master, with the aid of a gallery running round the room, could very well control 200 children. He was supposed to instruct the whole school orally at least once a day. His instruction was not to take the form of a lecture, but the children's activity of mind was to be stimulated, e.g. by the elliptical method. Thus, in describing the sacrifice of Isaac, the teacher would say: "Abraham went up a high —"; leaving the children to shout the missing word.

All other instruction was carried out by the monitors, of whom there was one to each eight or ten boys. Dr. Bell's well-known boast, "Give me twenty-four pupils to-day, and I will give you twenty-four masters to-morrow", if taken literally would mean that all the scholars of fair average ability served their turn as monitors. According to Lancaster, however, only some 10 per cent of the monitors in his schools actually taught. To the others different duties were assigned. Some, for example, had to take care that writing books were ruled, others had to mend the quill pens, a heavy task; others to give out and gather up books; others, again, to make enquiries after absentees and to inspect the improvement of the class. The plan of making selected children perform little routine duties has, of course, remained, to this day one of the most useful devices of school method.

The duties of the monitors were carried out

somewhat as follows. Little groups of children stood in semi-circular drafts marked out in the floor by cut or chalked lines. The monitor stood at the end of the semicircle with his board, on which were painted letters or figures. He shouted the name of the letter or figure, and the class repeated it. They then formed the letter themselves and shouted its name again. The work was examined by a superior monitor, who decided when the child was ready to pass into the next group. The whole school was divided into about eight of these classes, each indicated by a numbered board hung on an iron rod.

The classification for reading was as follows:—

Class	I, A B C	Class	V, 5 and 6 letters
"	II, 2 letters	"	VI, Testament.
"	III, 3 "	"	VII, Bible.
"	IV, 4 "	"	VIII, A selection of the best readers.

These grades were expressively indicated by a master who was displaying his school to an inspector in the following terms: "Them's the Alphabetters, them's the A, B, Abbers, them's the Bibles, and them's the Testamenters".

It appears that in theory these schools were free from punishment. Thus Jeremy Bentham states that "in the Lancasterian mode . . . no bodily pain is produced", while "in Dr. Bell's schools nothing it should seem that can in any way be termed punishment has ever been in use". It appears, however, that this theory was hardly carried out in practice, for we know that in some

schools there was a highly elaborated system of punishments and rewards. Detective monitors, who were sometimes given a commanding position by the master's raised platform, watched for offences. Or the monitor in charge of a class might be authorized to hang round an offender's neck a card with the number of the class and the words: "I have seen this boy idle," &c. The master might, perhaps, then have this culprit rocked in a cradle by a little girl. Other offenders had wooden logs tied to their necks or legs, and the worst might be hoisted in a basket to the ceiling.

The spirit of emulation was freely excited. Lancaster gives an account of an incorrigibly idle boy whose father used to chain a log to his foot and beat him to school every day (and yet some say that parental responsibility was not felt in those days). He was made a monitor, and on one occasion Lancaster betted him one shilling against an old rusty nail that another class would excel in writing that in which he taught. Lancaster lost the nail, and had to pay the shilling.

Every reading division had leather medals, numbered say from one to twelve, according to the places in the class. A boy who held Medal I also enjoyed a ticket labelled "Improvement in reading &c.", and often a picture painted on pasteboard suspended at his breast. The scale of rewards given in Lancaster's book, *On Education*, is: Medal I, gained three times  $\frac{1}{2}d.$ ; Medal II, gained six times  $1d.$ ; Medal III, gained eight times  $2d.$  There was a silver medal or order of merit to

which no boys were admitted save those who had particularly distinguished themselves by their proficiency in their own, or their improvement of others' studies, or by their efforts to check vice.

The whole scheme, quaint as it seems, presented certain advantages when supervised by men of education, talent, and enthusiasm, as were Bell and Lancaster. A mechanical efficiency in reading and writing was guaranteed by the amount of individual attention. In the best schools great facility in mental arithmetic was attained (e.g. the squaring of numbers containing four figures was often accomplished), while geography and even history were sometimes well taught. The effect of responsibility upon the monitors was, in many cases, good; as Greenough says in his description of the system as acclimatized in America, "to many in a monitor's desk came a revelation of his lifework".

A master naturally devoted much care to the teaching of his highest class, upon whom the reputation of his school would depend. But although the promising pupils no doubt benefited greatly, a radical defect was nevertheless present in a system which concentrated the best teaching upon these, instead of upon the younger and more backward children, who, as is generally recognized now, require the special attention of the more experienced teachers. The drilling which the younger children received in verbal and numerical symbols could have had little meaning for them, conducted as it was by beings as instinctive as themselves.

In the 1838 evidence it is stated that the monitors were characterized by their dislike to their work, negligence in passing over errors, and irreverent, familiar, and passionate remarks upon religious lessons.

While mechanical skill in spelling and ciphering might be imparted by such young teachers, it is clear that the Scripture, history, or geography could only be taught successfully by the headmaster. The success of the school therefore depended absolutely upon his judgment in arranging the syllabus, and upon his knowledge of every subject taught.

### **The Training of Monitors and Pupil Teachers**

The societies did indeed realize the importance of training the only adult in the school and early established "model training schools". The following account of these is taken from the Rev. J. Wigram's evidence.

The candidates for admission to a model school had to furnish a certificate of character from a clergyman and letters from three householders. They were examined on entrance in reading, writing, accounts, and music (psalmody). There was a blank space on the form for geography, history, and grammar, to be filled in if the candidate knew anything of these extras. He had also to show a knowledge of the Bible, church services, and Liturgy. The examinations, both written and viva voce, were held by the clerical superintendent on



Saturday mornings and other suitable occasions, and he had the responsibility of reporting to the committee on the teacher's progress. The training lasted from about three to five months in the central, and from six weeks to two months in the provincial schools. This time was considered sufficient to teach the mechanical details of the system and impart some general information to the relatively mature candidates, whose ages ranged from twenty-two to thirty years. The men teachers when fully trained were paid 10s. 6d. a week until provided with a situation; the women were paid nothing, but were maintained at reduced rates under the supervision of a matron.

Two obvious objections to the system, the force of which was indeed felt at the time, were, firstly, that a few weeks or months was not a sufficient time in which to become prepared for such a responsible position, and secondly, that even if the time had been sufficient the masters were too old when their professional training was begun. The monitors, on the other hand, were too young to share responsibility or to benefit by any instruction which their masters might give them. There was a gap in the profession of elementary school teaching which could only be filled by youthful but not childish assistants who would furnish a supply of future headmasters. In other words, apprentice teachers were required, old enough to learn with understanding, and to be capable of appreciating the fine points of teaching.

To meet these requirements the pupil-teacher

system was introduced between 1846 and 1856. It originated in some experiments carried out by Dr. Kay, afterwards Sir James Kay Shuttleworth. Some monitors already partially trained were transferred to a training college at Battersea which he had established in 1840. Dr. Kay had already in 1837 studied the elementary school apprenticeship system in Holland. In that country the pupil teachers were instructed in the evenings by an association of headmasters, each of whom taught his special subject or subjects. At the age of eighteen, if the candidates had successfully passed a series of tests, they were sent to a normal school at Haarlem, from which they emerged as fully qualified assistant teachers.

A description of Dr. Kay's scheme will be found in the minutes of the Committee of Council for 1840. In 1846 it was officially established as follows: The head teachers recommended by an inspector had the right of selecting apprentices (not more than one to twenty-five scholars). These were appointed at the age of thirteen for five years' service, and were paid by grants rising from £10 in their first to £20 in their third year. On account of their training the master received £5 for one apprentice, £9 for two, and £3 for each additional one. The master was expected to instruct them for at least one and a half hours a day before and after school hours, and to give them full opportunities for observing and practising the art of teaching during school hours. The contract was between the master and pupil teacher, and the latter was

free to leave the teaching profession at the end of the five years. But it was intended that the best pupil teachers should then gain Queen's Scholarships of from £20 to £25 a year tenable at the training colleges. Grants of from £20 to £30 a year were also paid to these in respect of each pupil teacher. By 1846 there were 15 training colleges in existence, including St. Mark's, Chelsea, 1841, Battersea, 1844 (National Society), and the Borough Road, 1842 (British and Foreign School Society).

An important step was taken in 1847, when, by a Minute of the Department, the teachers' qualifying examination was instituted. The certificates obtained, and not the course at any training college, became from this time the statutory qualification.

By 1857 pupil teachers had replaced monitors in all the best schools. The conditions of training remained practically unaltered until 1862. An account of subsequent changes will be found on pp. 86-93.

### Infant Schools

The following passage from one of Samuel Wilderspin's books shows that public opinion was beginning to be awakened to the neglected state of those children who were under the ordinary school age: "The numerous National and Sunday Schools, Tract Societies, &c., . . . have doubtless much good effect". But, he adds, "At the period usually assigned for their admission into these schools, they

(the children) have not only acquired many evil habits, but their affections have become so thoroughly perverted as to offer insuperable obstacles to the corrective efforts of their teachers . . . the most likely human means to produce such an increase (of the fruitfulness of Sunday schools) is the establishment of infant schools, schools designed particularly for the cultivation of the affections”.

The kindergarten methods employed upon the Continent were already well known, and offered a chance of development along rational and moral lines to little children who were being either stupefied and neglected in the dame schools, or who were forming in their homes or in the streets habits which should unfit them for any kind of honest life. In 1819 it was estimated that about 1300 boys procured a living by thieving in London; and one man in Wentworth Street, Spitalfields, kept forty boys in regular training to pick pockets.

The first infant school was started by Robert Owen, the socialist philanthropist, at his New Lanark Mills before 1816. A weaver named James Buchanan had been appointed headmaster, and his success was such, that he was in 1818 induced by Henry Brougham to take charge of the new infant school which had been founded at Westminster. Shortly afterwards several others were opened, and in 1826 the Infant School Society was founded amidst the greatest enthusiasm. Samuel Wilderspin, a prolific writer on kindergarten methods, was appointed travelling teacher and organizer. Among the earliest subscribers are to be found

representatives of many classes and shades of opinion: Robert Owen, Henry Brougham, the Marquis of Lansdowne, and several members of the Lubbock family. By 1825 there were sixty-five of these schools for the infant poor between the ages of one and a half and seven years.

The schoolrooms, usually planned to accommodate 150 children, measured about 80 ft by 22 ft. They were provided with seats round the walls, a rising platform at the end and a lesson post for each of the monitors. The prospectus stated that children were to teach each other as much as possible in the part that was purely mechanical. As this comprised the greater part of the lessons, the monitors were kept busy bringing up groups of three or four children at a time, and pointing to their boards with pieces of cane. As many as one hundred were thus kept circulating.

The rapid progress of these children, on which the society prided itself, was attained by much memorizing. For example, in arithmetic not only the multiplication table, but also such complicated relations as "in 34 are 4 times 8 and  $\frac{1}{4}$  of 8" were chanted in chorus. Rhymes like:

"Twenty pence are one and eightpence,  
That we can't afford to lose,  
Thirty pence are two and sixpence,  
That will buy a pair of shoes",

were much in vogue.

As may be imagined, there was much less apparatus than is to be found in a modern kindergarten.

The bead-and-wire counting frame, however, and other well-known devices were extensively used.

In the prospectus it is stated that there were to be no punishments, since "disobedience will sufficiently punish itself", and further that the schools were open to children of every sect, and intended as a preparation as well for religion as for useful knowledge. In intention, then, we see that they did not differ materially from the infant departments of the present day. The verses were rather more didactic and religious, less fanciful and amusing, the pictures and apparatus of necessity incomparably inferior. The following is a typical time-table.—

Hours: 9-12 and 2-5, Thursday.

*Morning.* Prayer and hymn Slate and pencil. Letters and spelling Division, weights and measures, and time, from the rostrum Play Gallery. Same lessons as Monday morning.

*Afternoon.* Prayer and hymn From the lesson posts, epitome of geometry and natural history. Gallery, brass letters and figures Extempore teaching on men and things, taking care that all such teaching shall be illustrated by substances.

### Other Denominational Schools

Following the example early set by the Church of England, other religious communities formed societies in order to give an education of a particular and desired type. A full catalogue of those

existing in 1870 will be found in Bartley's *Schools for the People*

Wesley realized early in his ministry the importance of an early and special education. In 1739 he built a school for the children of the Kingswood colliers, and in 1748 he wrote: "At length I determined to have them taught in my own house, that they might have an opportunity of learning to read, write, and cast accounts (if no more) without being under the necessity of learning heathenism at the same time". In 1836 there were 31 Wesleyan schools in existence, and in 1837 the Educational Committee was formed, which by 1840 controlled 101 schools with 8193 scholars. This committee, composed of fifteen ministers and fifteen laymen, was elected annually to superintend both Sunday and day schools. In 1841 it drew up a systematic plan of education which was to include instruction based upon the Bible. The schools were open to children of all denominations, who could be withdrawn from religious instruction at the desire of the parents. In 1855 Inspector Bowstead wrote that the "Wesleyan schools make a nearer approach to the excellence of their metropolitan model than those of any other class subject to my inspection. There is no instance in my district of a Wesleyan school, under inspection, being taught by an untrained teacher."

The schools were, in the first instance, dependent upon local support, and in order to assist them a general fund was started in 1845. The extension of the capitation grants to all parts of the country

in 1856 was of material assistance, and the presence of the conscience clause presented no difficulty, since this had already been made one of the conditions under which the schools were constructed.

The Roman Catholic schools date from about 1820, but there are no statistics until 1845, at which time 220 schools were in existence. Even in 1851 there were, out of 100,000 Roman Catholic children between five and fifteen years of age, only 35,000 in their own schools.

The oldest Jewish school appears to have been that at Bell Lane, founded in 1817. An infant school at Spitalfields dated from 1841. It has often been remarked by sociologists that in poor quarters the Jewish children compare favourably in physique with the Christian, and this difference has been attributed to the observance of traditional precepts concerning diet, &c, in the former case. It is interesting to note that the intelligence of the Jewish children in the middle of the century was clearly marked. They were able to attain to quite as high a level of instruction as those in other elementary schools, in spite of the handicap of having to learn an extra language.

The Congregational Board of Education was instituted in 1843, and in 1845 controlled about 147 schools. These were originally intended to be unsectarian and free from Government assistance, but this was admitted in 1867 by a resolution altering the rules.



### Private Schools

Besides the National, British, and a few other small classes of schools endowed by subscription, there were for poor children the private venture schools—a numerous class, and as bad as they were numerous. The societies' schools were worked on a system, albeit an imperfect one. They were supervised and controlled by the clergyman of the parish, an educated man, whatever his prejudices, and by enlightened committees at headquarters. They were inspected and received grants (more or less according to the results), and the teachers were at any rate trained for a short time.

None of these conditions held for the private, or as they were called the "dame" and "common day" schools. The only qualification which the masters possessed for teaching was that they had failed in some other occupation, or required the extra pay to eke out a miserable existence. Long catalogues of the trades of the poor creatures who undertook teaching are to be found in old reports. The following is from Macaulay's speech in the Commons in 1847:—

"How many of these men are now the refuse of other callings, discarded servants or ruined tradesmen, who cannot do a sum of three; who would not be able to write a common letter; who do not know whether the earth is a cube or a sphere, and cannot tell whether Jerusalem is in Asia or America; whom no gentleman would trust with the key of his cellar, and no tradesman would send a message." As for

the dames, let one who was quoted the same evening speak for herself: "It's little they pays us and it's little we teaches them".

It is recorded of the latter that they displayed less activity than the men, both in coercion and instruction. Certainly the activities of the masters were chiefly exercised in the former direction. One, mentioned by Kay, in order to display his zeal before visitors, stepped into the class, dealt out cuffs all round to those within reach, and then stepped back, perfectly satisfied that he had done all that duty demanded. The masters thought it quite right and proper that the children should squat on the floor of a dirty den with scarcely any books; this was "the old road", which, they said, "is the best; there is no royal road to learning". The mistresses also considered their qualifications to be quite sufficient. One of them is reputed to have hoped that: "Govm't, if they interfere, will pass a law that nobody that is not high larnt shall teach in future, then we shall have a chance".

The following is culled from Mr. Wood's evidence in 1838 about the Liverpool schools:—

"They consist of one master or teacher and fifteen to forty pupils. Many are damp and dirty, one-half are used as dwelling, dormitory, or schoolrooms, and above forty are in cellars. Of the common day-schools, especially in poorer districts, it is difficult to convey an adequate idea, so close and offensive is the atmosphere. . . ."

The dames used to go washing and leave the school in charge of a neighbour, while in more than

half the schools they washed during school hours. Neither mistress nor children could afford to buy books. The dames sometimes had the quaintest ideas. One thought it unlucky to count her scholars. "It w'd be a flat flying in the face of Providence; no, no," said she, "you shan't catch me counting: see what a pretty mess David made of it when he counted the children of Israel."

The cost of this inferior education was by no means low. The following fees are taken from the Minutes of Evidence, 1838, and apply to Liverpool. The cost per child per week was a little over 3d. in the dame schools, and a little over 9d. in the boys' and girls' schools. The dames were poor, hard-worked women, and the pittance they received for minding neglected babies was certainly useful to themselves and perhaps, on the whole, earned. The masters received more, and simple calculation will show that one man might earn nearly £80 a year. This was more than the trained master in the monitorial school often received. To put the matter in another way It was estimated that, deducting one-fifth from the nominal fees, about £13,000 had been paid in Liverpool for giving 11,000 children a worthless education, the cost per head per annum being thus £1, 4s. as against 15s. to £1 in the monitorial schools.

### The Need for more Education

That England at this time compared most unfavourably in this respect with other nations of

Western Europe may be gathered from Kay's book on the Education of the Poor in England and Europe, 1844. It is here stated that England had 7 training colleges to France's 13. Switzerland, a poor country (this was before the "fremden industrie" had attained such large proportions), with a population about one-half that of London, supported and carried on an educational system greater than that which our Government maintained for the whole of England and Wales. England was manufacturing paupers as well as buttons and anchors. The Poor Law bill in 1844 amounted to some £5,000,000, while about 86 per cent of the population were receiving outdoor relief and 12 per cent were in workhouses. The connection between ignorance and pauperism was very clear to Kay, and the results of continued neglect clearer still. Let the following passages speak for themselves:—

"If gentlemen of the south, accustomed to live on their quiet country domains, where hitherto civilization has been almost stationary, would only reflect on the change which will come over their rustic tenants when railways have so much increased in number and in cheapness, that the people of the south and of the country districts will be able to visit towns, and will thus be awakened from that torpor of villenage in which they are now sunk; if they would only visit the northern districts themselves and see what is doing there, and if they would stay some little time in the smoke of that wonderful region, they would then comprehend me when I say, that unless Government with heart and

soul assists the Church and the Dissenters to educate the people, the Government and the Church will both be overthrown together."

In some such terms more schools were demanded by other thinkers, and this demand not only arose from the landed class and the church, which were inspired by feelings of pity for the neglected factory apprentices and fear of the fermentation which the leaven of the French Revolution might work among the dense industrial population. It arose also from the members of this population, who had a genuine craving for knowledge, as well as a regard for the opportunities of advancement which it offered.

The magnitude of the task of meeting this demand may be realized when it is noted that the population of England very nearly doubled between 1801 and 1845. Statistics of the actual deficit in schools are scanty before the middle of the century. Lord Brougham's Commission which sat from 1816 to 1837 reported that in London only one person out of twenty-four was at any sort of school; in the whole country one out of sixteen.

By 1833 the societies had made good progress (see Statistics, Appendix). In that year, out of a working-class population of 12,400,000, 500,000 children went to free schools. There was thus about 6.4 per cent of the labouring population at school, 8.8 per cent of the total population.<sup>1</sup> Half the parishes of the rural counties were quite devoid of schools.

One of the obstacles in the way of improvement

<sup>1</sup> Children of school age form about 20 per cent of the population.

was the paucity and low standing of the teachers. In the work already referred to, Kay strongly insists that the schoolmaster must be an educated man and shall therefore be treated as such, since "to educate in the full sense of the word was as liberal an occupation as any in the Commonwealth. And no man fit to undertake the work would do so for a pay less than that of an ordinary labourer, subject without appeal to the caprices of the clergyman of the parish, or the local subscribers to the school, or the parents of his scholars. The monitorial, the simultaneous, the circulating, the interrogative, the suggestive systems have each been advocated separately or in combination. . . . It has been taken for granted that the machinery of education would work itself."

That sentence precisely represents the main defects of the societies' schools. The benevolent subscribed, and having seen that a "system" was established, delegated their duties to local trustees. These were in most cases so deeply engaged in business that they never visited the schools, but left them completely to the clergy. These, in their turn, were often completely occupied with their own rapidly growing parishes. In the rural districts many of the tenant-farmers were actually hostile to education, as they held that the cultivation of the intellect unfits for manual labour. Cobbett, the mouthpiece of independent utilitarianism, described the first education grant as "a movement to increase the number of schoolmasters and mistresses, that new class of idler. Take two men," he says,

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"one that can plow and make hurdles and one that can plow and read, and the first is the better man." There is, of course, something to be said on this side. A too exclusively literary and clerical or specialized scientific education such as was attempted in some cases towards the end of the century does tend to unfit for certain kinds of occupation. At the time when Cobbett wrote, however, the need was all for some humanizing culture which should give the power to read the Bible, to cast accounts, to visualize a little of the great world outside the town. It was many a long day before these elements of a complete human life were secured to the majority of the population.

The difficulties in the way were mainly those of finance, complicated on the one hand by the half-heartedness of individualists who held that a demand would surely sooner or later raise up for itself a supply; and, on the other, by the dissensions of the voluntary bodies which sought to retain the whole control of present and future education, at the same time that they were unable without State aid to carry on the part they had begun. Tribute has been paid, and deservedly, to the splendid pioneer work these societies had done in the early years before the State had realized that it had any responsibilities. Their action has contributed much to the hopeful diversity of British methods; while the long and bitter controversy which obscured for a time some of the more important ends of education has stimulated an interest in the whole matter,

which is now fully equal to that in any European nation.

A brief account will now be given of the first attempts at State intervention—attempts which, if carried out, would have anticipated our present position by about fifty years. The contrast is striking indeed between the boldness of the measures first proposed and the tentative nature of those which remained after all warring interests had been conciliated. For example, bills for the establishment of universal schools by the nation, such as Mr. Whitbread's in 1807, or of a Department of Public Instruction, such as Lord Brougham's and Mr. Wyse's in 1837-8, were opposed by churchmen and Nonconformists alike; whereas others, such as Lord Brougham's of 1820 which proposed to place a scheme for universal education in the hands of Church of England teachers, were as effectively rejected by the Nonconformists.

The chief progress which had been made before 1883 was the enlightenment of public opinion as to the true state of affairs. This was accomplished by the reports of select committees, the first of which moved by Lord Brougham in 1816 was re-appointed under his chairmanship until 1837. The recommendations published at intervals called for universal schools supported from the rates, evening schools, schools of industry, normal schools, and a great extension of the curriculum.



### The Intervention of the State

The first definite step taken by Parliament was to vote £20,000 in aid of private subscriptions to build schoolhouses. The grant was to be apportioned at the recommendations of the two societies, and on the condition that an amount equal to that applied for had been already subscribed. So rapid was the response that the Treasury soon found itself unable to supply the money required. This point must be carefully remembered in estimating the responsibility of the societies for neglect to supply sufficient schools in later years. Thus, in 1835-6 £21,699 was given by the State in place of £30,640 applied for. Parliament on its side was dissatisfied with the principle of granting State money without any control over the spending of the same. It was no doubt thought that schoolhouses could be safely subsidized, since they were at any rate a substantial asset to the nation, whereas money voted for the payment of teachers might have been spent as unwisely as had been the grammar-school endowments.

In 1835 the Ministry attempted to extend their control over education by voting £10,000 for the creation of a State training college. It was to be undenominational, but licensed ministers of various denominations were to have the right of giving special religious instruction therein. This proposal aroused such determined opposition that it was abandoned, and in 1839 the money was divided

between the two societies in aid of their training colleges.

In 1835 new conditions were attached to the grants, namely that there should be a right of inspection, that the Bible should be read as part of the religious instruction, and that children might be withdrawn from the latter under a conscience clause, except in the case of schools recommended by the National Society. These conditions were all opposed by the champions of the voluntary schools

The objections to a Government inspection were overcome by a minute of 1840 which provided that all inspectors of church schools should be approved by the Archbishops of Canterbury and York. The British Society received a similar privilege in 1843. There remained, however, a dislike and distrust of the growing authority of the State, and this feeling was clearly shown in the opposition to the establishment of a permanent State Department. Any measure which proposed this was sure of rejection in the House of Lords, and their opposition had to be circumvented by a device. In 1839 the Queen published an Order in Council appointing a special committee of the Privy Council to supervise the spending of the Education Vote. The House of Lords protested in vain, but an adverse motion in the Commons was only just lost by 275 to 280 votes.

The reason for the Queen's action is best illustrated by quotation from a letter which Lord John Russell addressed to Lord Lansdowne, requesting

him to act as the first chairman of the Special Committee " . . . Her Majesty has observed with deep concern the want of instruction which is still observable among the poorer classes of her subjects. All the inquiries which have been made show a deficiency in the general Education of the People which is not in accordance with the character of a civilized and Christian nation. . . . It is some consolation to Her Majesty to perceive that of late years the zeal for popular education has increased, that the Established Church has made great efforts to promote the building of schools, and that the National and the British and Foreign School Societies have actively endeavoured to stimulate the liberality of the benevolent and enlightened friends of general education. Still much remains to be done . . . "

He then goes on to enumerate the defects already mentioned

The debates which from this time onwards took place at frequent intervals in the House of Commons turned, however, chiefly on the religious question. The lack of teachers, bad teaching, and want of inspection did not hold a prominent place in the speeches of Disraeli, Gladstone, and Peel, who were all opposed to State action. The points were, however, made the most of by Lord John Russell, Mr. Wyse, and others who defended it. The Committee, once elected, continued to frame regulations without hindrance until 1846. In that year the Education Vote had risen to £100,000.

In 1847 the Committee succeeded in introducing

conscience clauses into the deeds of schools aided by the grant.

The strife for fuller State control recommenced in 1850 with the rejection of the Lancashire Public Schools' Association's Bill for free State-supported schools. A series of bills were now introduced by Lord John Russell and Sir John Pakington. Although differing in details, their main purpose was to introduce control by locally elected committees with power to use local rates. These two principles were in all cases rejected. Additional State assistance was, however, given in 1853 and 1856. By a minute of the Department a Government capitation grant of from four to six shillings for boys and from three to five shillings for girls making a certain number of attendances was allowed to rural and urban schools respectively, in order to help those which had fared badly under the principle of giving pound for pound, or later one pound for two pounds locally raised.

In 1856 the administration of education was first brought into direct touch with the House of Commons, for in that year an Education Department was created with a Vice-President, who was selected by the Premier and was the first Minister of Education. The Department consisted at first of the former Committee of the Privy Council, together with the Science and Art Department (see p. 76).

In view of the increased importance which education had now assumed, as a permanent State service, it was necessary to make a more exhaustive enquiry

than had yet been undertaken into the defects and possibilities of the existing system. The statistics available, incomplete as they were, showed many serious defects. The inspected schools were presumably the best, yet 42 per cent of the children in these had attended for less than a year, and it was also known that such attendance was most irregular. Until more definite information was forthcoming on these and other points, the next decisive step could not be taken.

## CHAPTER II

### THE PROGRESS OF EDUCATION FROM 1860 TO 1870

The need for an exhaustive and authoritative collection of educational statistics was met by a motion of Sir John Pakington in 1858 to set up a Commission of Inquiry. This Commission, with the Duke of Newcastle as chairman, published its report in four volumes in 1861. The state of affairs thus revealed led directly to the legislation of succeeding years, while the direction of that legislation was, in many cases, guided by the recommendations of the Commission.

The actual number of children at school was not altogether unsatisfactory as judged by the standards of the time. In 1838 it had been recommended that education should be provided for at least 1 in 8 (12.5 per cent) of the population. In 1856 there were about 2,000,000 children on the books of the schools, and by 1858 the number at weekday schools had risen to about 2,500,000 out of a population of 19,500,000, i.e. 1 in 7.8. The correct proportion of children of school age is, however, about 1 in 5, or 20 per cent of the population, and that standard is closely approached at the present day.

The numbers attending any kind of school in 1858 were probably greater than those given above, since there were also 2,400,000 in Sunday, and

81,000 in evening schools. Setting these aside, however, it is seen that, roughly speaking, two-thirds of the child population was nominally at school.

The proportion in which these children were distributed between the public and private schools is important, since it has already been recognized that the public schools, i.e. those of the societies or other recognized authorities, alone offered trained teachers or a definite standard of work, the private or fee-paying schools for the poorer classes being worthless. Of the total number of children on the school books about 1,670,000, or roughly two-thirds, attended public schools. Only 917,000, or about one-half, were in schools aided by Government grants, and 1,100,000 were on the books of inspected schools. Only 76 per cent, or about three-quarters of those on the books, were in regular attendance, so that the numbers actually attending grant-earning schools, and therefore receiving some sort of education, were about 700,000 and amounted to 1 in 5.6, or 18 per cent of the child population (3,900,000), and 1 in 28, or 3.5 per cent of the total population (19,500,000). And further, it was estimated that only about one-quarter of the children stayed long enough to acquire the mere rudiments of culture, which were all that was supplied even to the higher classes of the superior schools. Of the numbers on the roll 70 per cent were children under ten. This indicated a serious leakage of children who had reached the then earning age.

Various remedies were proposed for these evils.

Regular attendance had already been encouraged by the limitation of the capitation grant (see p. 48) to the children who had been at school for at least 176 days in the preceding year. In 1857 only 36 per cent of those at school earned this grant. The Commission were in favour of a much higher contribution (21s.), made up of grants from the State and the rates, for a shorter attendance (140 days), coupled, however, with the successful passing of a test.

The quality and salaries of the teachers still left much to be desired. In 1856 there were 700 teachers who could not write, and 8000 head teachers received less than £28 a year. In spite of this underpayment of teachers and the aid of private subscriptions, the small educational results alluded to above had been achieved at relatively great cost. After the extension of State grants in 1847, from the provision of school buildings to the training of teachers, augmentation of salaries, provision of school gardens, and other objects, the annual budget had risen from £20,000 to over £100,000 in 1849, nearly £200,000 in 1852, £500,000 in 1856, and £660,000 in 1858.<sup>1</sup> As will be seen from the figures on p. 51, about fourteen shillings and sixpence was paid in 1858 from the Treasury for each child on the roll of an aided school. If one considers, however, only the smaller number, 700,000, i.e. the children who were actually attending grant-earning schools, it is seen that the cost works out at nearly £1 per head per annum. In addition to the State contribution and

<sup>1</sup> Of this last sum about £160,000 was given for buildings.



the subscriptions of the societies, a considerable sum was paid as school pence, which amounted to £500,000 in 1852. From 1839 until 1859 the Government had spent altogether £3,700,000.

The results already mentioned were hardly what might have been expected from a State subsidy, at the average rate of nearly a million and a half pounds a year. It is true that much of this, as well as the privately subscribed funds, was spent on school buildings, which were almost completely lacking in 1833. Yet even the building grants were injudiciously distributed on the principle of proportionate contribution. It was estimated that 92 per cent of the larger, and only 9 per cent of the smaller, parishes were supplied with buildings. Thus the whole statistics of the time, whether they relate to the irregularity of distribution of schools, the cost of educating the children, or the quality of education supplied, are a standing example of the wastefulness due to want of organization. It was the problem of securing efficiency in these respects which was undertaken by Mr R. Lowe as Vice-President of the Education Department in 1860. This problem had to be solved, if possible, without interfering too much with the managers of the voluntary schools, or superseding them by locally elected authorities.

The need for reform had been summarized by the Newcastle Commission as follows:—

“In the first place, that the system may be made applicable to the poorer no less than the richer districts throughout the whole country, secondly, that the present expenditure may be controlled and

regulated; thirdly, that the complication of business in the central office may be checked, fourthly, that greater local activity and interest in education may be encouraged, fifthly, that the general attainment of a greater degree of elementary knowledge may be secured than is acquired at present."

The restrictions referred to above made it impossible to fulfil all these aims, and accordingly the second, fourth, and fifth only were attempted by the new regulations. Before this time, minutes had been published occasionally by the Education Department, and an abstract of these was published as a Parliamentary paper in 1858. The new regulations of Mr. Lowe were embodied in the Original Code of 1860 and modified by the Revised Code of 1861. The scope of the reforms contained therein is indicated by the declaration that "It is not the intention of the Government to infringe on the organic principles of the present system, namely its denominational character, its foundation on a broad religious basis, its teaching religion, and the practice of giving grants from the central office in aid of local subscriptions, the propriety of those grants to be ascertained by inspection".

### **The Revised Code and its Effects**

The Revised Code was, in fact, merely a considerable extension of the right which the State had exercised to some extent ever since 1833 of laying down the conditions under which grants were to be allotted. These conditions were made

more stringent than before, and included adequate school buildings and attendance, and efficient teaching. They have been summarized as follows in Craik's *The State and Education*, to which reference may be made for a complete account of the advantages and disadvantages of this Code.

(1) The school must be held in approved premises, and must be under the charge of a certificated teacher.

(2) The children must have made a certain number of attendances.

(3) They must pass an individual examination in reading, writing, and arithmetic, and according to the results in each case a grant was to be made.

Compulsory external examinations are always unpopular, especially when, as in this case, the teacher's living was made to depend upon the result of a test which was, as he could not but recognize, extremely partial and mechanical. The immediate effect of the Code was a narrowing of the aim of education which came to consist in the memorizing of the limited facts required by the syllabus (see p. 121) and the acquirement of the skill demanded in reading, spelling, and ciphering. The managers and teachers naturally favoured those subjects which lend themselves to examination tests, and it was recognized, as one of H.M. Inspectors wrote in 1867, that "The studies of the classroom must be those wherein progress can be definitely measured by examination".

At that time it is probable that the recurring

exact and mechanical examinations did a certain amount of good. As an inspector (Mr. Alderson) remarked in 1865, it was "a good test of a bad school and a very indifferent one of a good school". Former inspectors had in vain called attention to deficiencies, which were often due, by the way, not so much to incompetency of teachers as to irregular attendance. Thus, Mr. Moncrieff, in 1861, was asked whether a class of children of nine or ten years of age should not be able to read correctly and work the first four rules of arithmetic. He replied that such children could not form a class, but would be found individually in the top class; "for children who attend regularly rise so fast that they cannot be caught in groups".

This irregularity in attendance of course greatly increased the difficulty which the managers experienced in mustering a fair show of candidates for examination day. It was reported that on one occasion children were presented in a state more calling for medical than inspectorial examination, with their throats bandaged and skin peeling from a recent attack of scarlatina.

Such an example illustrates most clearly the great change which has since come over the whole view of the relations between local authorities and the children under their care. It must, of course, be remembered that the local funds for educational purposes were very scanty. The total expenses of maintaining a school before 1860 were reckoned at about thirty shillings a head. Of this the Government provided one-quarter, the fees from one-

quarter to three-fifths, and the balance was made up by subscriptions.

The total capitation grants which were paid shortly after 1862 amounted to 12*s.* Out of this, 4*s.* was payable on 200 attendances a year; the remainder, in three sums of 2*s.* 8*d.* each, was given for passing in each of the three elementary subjects.

Another change made at this time which has permanently affected the position of teachers, was the withdrawal from them of all grants in augmentation of their salaries, and the payment of these augmentation, as well as the capitation, grants only to the governing bodies. These bodies henceforth had complete power to regulate teachers' salaries according to the law of supply and demand, and it seems possible to trace the influence of this regulation upon teachers' salaries at the time. See Table IV, p. 189.

A surer indication of the great economy effected by the Code is to be obtained from the annual estimates. These fell from £930,000 in 1859 to £656,000 in 1865, and the actual cost per head was reduced from 11*s.* 6*d.* to 9*s.* 1*d.* Subsequently the estimates rose again owing to an increase in the capitation fee and in the number of children at inspected schools. That the kind of efficiency aimed at was also in a measure secured may be gathered from the improvement in the examination results, which in 1863 showed a total of 1600 passes out of 70,000 examined (2.3 per cent), while in 1869 67 per cent passed, out of a total of 640,000 children presented. A certain standard had thus

been set up, to which the State-aided schools more or less conformed. But the improvement in the general standard of work and in the attendance was very slow. In 1868 it appeared that 40 per cent of the schools were still under no obligation to be tested.

In 1869, after the Revised Code had been in force for seven years, the results, briefly, were that about a million children were in regular attendance at day or evening schools, and of these between six and seven hundred thousand presented themselves for examination. The population being at that time about 22,000,000, it is evident that only about ten out of every forty-four children were attending a school regularly. One-half of the children of the poor still had no education. Thus, in Liverpool there were forty to fifty thousand children not at school, of whom twenty-five to thirty thousand were receiving an undesirable education on the streets.

The whole responsibility of establishing schools in the districts where they were required rested with the voluntary subscribers, of whom there were about 200,000 at this time. It is obvious that these were not uniformly distributed over the country, and therefore while sufficient schools were provided in some places, in others they were still utterly lacking. There was no security that the existing boards of managers might not cease their work at any time on account of some regulation which might be displeasing to them. Elementary education was still in theory and practice mainly a matter for private

effort, and the cost of it was divided about equally between the voluntary subscribers, the parents (fees), and the State. The latter could still only enforce its regulations by the withdrawal of its contribution. Since 1833 about £10,000,000 had been given by the Exchequer towards education, but yet there was not a single Parliamentary Act which referred to the subject, excepting that which established the Vice-President of Committee of Council. It was increasingly evident that more legislation was needed, and numerous attempts were made by Sir John Pakington, Mr. Bruce, Earl Russell, and Mr. Melly to introduce the principles afterwards incorporated in the Act of 1870. The system established in 1862 could only be temporary, and it was now widely felt that although private efforts had done their best and accomplished much, the time had come for the establishment of local authorities who should be responsible for education and who should be able to use local rates for the purpose.

## CHAPTER III

### FINANCIAL AND ADMINISTRATIVE CHANGES FROM 1870 ONWARDS

#### Act of 1870

The Act which was introduced by the Right Hon. W. E. Forster, Vice-President of the Education Department in 1870, has rightly been considered the turning-point of English elementary education. From this time education definitely enters the sphere of Parliamentary action. The principle of rate-aid, advocated in vain by Lord Brougham, Lord John Russell, and many others, was at last established.

The newly-constituted School Boards were given powers to take money from the local rates or to levy a rate themselves for each school district. The districts might be boroughs or parishes, and it was originally intended that the School Boards should be elected by the town councils and vestries respectively. In the Act as finally amended, however, an *ad hoc* authority was substituted: the members of the School Boards, who might be resident or non-resident, were elected by a majority of the ratepayers, both men and women, and sat for three years. This new local authority was



charged with the duty of supplying schools in all localities where they were needed. The existing accommodation was to be investigated by the central authority, and the voluntary subscribers were to be given the first chance of supplying any schools which might be required. If no action were taken the Department had the power to compel the election of a School Board.

The board or undenominational schools had to be conducted in compliance with the requirements of an elementary school as stated from time to time by the Department. They were to be open for inspection at any time by the Department's inspectors, and the instruction was to be in accordance with the Code of the current year. Leave to attend the school was to be free from all conditions of attendance or non-attendance at any religious services or religious instruction. Any religious instruction which might be given at the school was to be at the beginning or end, or at the beginning and end, of the school day. By the Cowper-Temple clause the nature of such instruction in the board schools was defined as follows: "No religious catechism or religious formula distinctive of any particular denomination was to be taught therein".

The voluntary schools were to be controlled by the managers as before. They received grants from the State but not from the rates. The latter form of grant was proposed in the first instance, but changed into an additional State grant in the Act as finally amended. In order to earn these grants

they had to comply with the general conditions of public elementary schools, and a conscience clause permitted the withdrawal of children from specific religious instruction.

From this time the State definitely assumed the responsibility of seeing that sufficient schools were provided throughout the country. The function of the central authority was, briefly, to inspect, examine, and give grants on the results of examination, and to aid the local authorities by other grants proportional to the attendance of the children. It had further to make regulations, and to see that these were carried out by the local authorities. The function of the latter was to build and maintain schools where required, and to engage and pay teachers. They were also empowered to make by-laws with the following objects: (1) To compel attendance at school of children between the ages of five and thirteen (fourteen in 1900). (2) To fix the times of attendance. (3) To remit fees in the case of poverty. It is important to note that at first the School Boards were not compelled to pass the attendance by-law, but only had power to do so. There was no arrangement for this by-law in the non-school board areas until 1876. By the Act of that year school attendance committees were set up in these areas also, and in 1880 all school boards and school attendance committees were obliged to provide for compulsory attendance.

The two independent local authorities thus established, school boards and managers, did not

wait for the mandate of the Department, but began immediately to fill the gaps in school accommodation, and the rivalry between them caused a great increase of activity on both sides. A concession which had been made to the voluntary schools was that they could apply for building grants up to 1871. They took full advantage of this last opportunity; no less than 3342 applications were made in 1870, and about £3,000,000 was raised in support of them between 1869 and 1876, the State contributing only about one-fifth of this sum. The applications were not finally disposed of until 1881-2.

The financial activity of the School Boards with the rates at their command was naturally even greater. It was estimated by Mr. Forster that the Education Rate would in no case exceed three-pence in the pound, but a much greater effort than this was required to fulfil the provisions of the successive Codes. As will be seen from Special Reports I (see p. 202) the annual amount spent by local authorities increased fifty-seven-fold between 1871 and 1895. The amount of voluntary subscriptions also increased, but reached a maximum in 1886 and has since declined. The annual expenditure by the State has increased between seven- and eight-fold in the same period.

### **Rise of Expenditure**

The reasons for such a great advance in expenditure are only partly to be found in the increase

of the population. The first duty was, of course, to provide for the population existing at the time. This task was now begun in earnest, and it appears from the statistics that the school accommodation was nearly doubled between 1869 and 1876.

More attention was also given to the training of teachers. The Government grant in aid of this department was nearly doubled between 1871 and 1895; the fees paid by the students increased five-fold, and on the whole more than twice as much was spent by the State, students, and subscribers. A much-needed increase was made in the salaries of teachers. The average salaries of masters rose from £94 in 1871 to £122 in 1895; those of mistresses from £57 to £81. On the whole the cost of a year's education for each child (exclusive of the upkeep of buildings) rose from £1, 8s. 4½d. in 1872 to £2, 10s. 1¾d. in 1895 in the provided, and from £1, 7s. 5d. to £1, 18s. 11¼d. in the non-provided schools.

### Allotment of Grants

The contribution of the State after 1870 chiefly took the form of—

- (a) Grants in aid of local charities based upon attendance.
- (b) Grants paid on the results of teaching as tested by examinations.
- (c) Grants in relief of the parents' fees.
- (a) The ordinary grant of 1870 bore a strong

resemblance to that instituted by the Revised Code. It was to be paid partly on attendance, partly on the results of the examination. A proportionate contribution was required from the local authority. The maximum to be given by the Government was to be equal to either the total income of the school from the rates, fees, and subscriptions, provided this did not exceed 15s. per scholar. The chief change after 1870 has been a gradual abandonment of the principle of proportionate contribution. By the Act of 1876, a sum of 17s. 6d. a year for each child was to be paid in any case. The poor board and voluntary schools, especially those in rural districts, fared ill under the system of giving pound for pound, and even at the present time when a "block grant" is given on a capitation basis, a special supplement is required in the case of such schools. The difficulty was met in 1870 by the regulation which provided that the amount by which the produce of a 3d. rate fell short of £20, or 7s. 6d. per child, was to be made up by a special grant from the State. The later aid grants established in 1876 and 1897 took the form of fixed extra contributions to the poorer schools.

(b) The payments on the results of examinations in reading, writing, and arithmetic were continued by the Code of 1870. In 1867 extra grants had been paid for certain supplementary or specific subjects (see p. 107). The examination of individual pupils for grants began to disappear in 1875, and in 1890 the general grant was made on the inspector's report and on the result of examining not less than

one-third of the scholars. By 1897 the payment by results in specific subjects also had disappeared.

(c) A measure which has had the greatest social significance is the institution of the fee grant of 1891, which provided for the payment by the State of a sum of 10s per head per annum for each child between the ages of three and fifteen, instead of school pence. No school built after 1891 could charge any fees. The Act of 1870 had provided that schooling for their children should be within the reach of almost all parents by fixing a maximum average charge of 9d. a week in elementary schools. The fee grant has had the effect of making education practically free. In 1904 a little more than one-eighth of all schools charged fees, but these, in most cases, did not amount to more than 3d. a week. The steps towards free education may be summarized as follows. Before 1870 both schooling and payment were optional on parents; from 1870 to 1891 schooling and payment were gradually made compulsory in all districts; after 1891, schooling was compulsory and free.

The assumption by the State of the parent's responsibility in this matter is only one form of expression of a public opinion which has come to regard the adequate development of the next generation as a first charge on the State. The feeding of necessitous children, the care of the feeble-minded in special schools, the formation of school clinics, are other expressions of this opinion.

The free gift of a good education, while admitted to be an unmingled blessing to the children, has been

alleged to have the effect of diminishing parental responsibility. It is, of course, a psychological fact that we tend to undervalue what is free. Each successive generation will, no doubt, however, perceive more clearly that education, though of course much better, actually in most cases costs the parents more than in the years when they had to pay fees. Even although part of the fee grant is now borne by larger incomes and by childless people, yet the residue in the form of increased rents of even the humblest houses may be a heavier tax than the old "school pence".

It may be of interest here to recount the sources of income of the elementary school after 1902.

(1) Income from such donations, subscriptions, and endowments as are specifically reserved for religious teaching, &c., in the case of the voluntary schools, and income from such endowments, &c., as are not so reserved, in the case of council schools.

(2) The rates, which were at or about 1s. in the £1 in 20 per cent of English boroughs and 17 per cent of parishes in 1904.

(3) Money from fees, sale of needlework, &c.

(4) Block grant from the Board of Education, which after 1st August, 1909, amounts to 13s. 4d. for each unit of average attendance under five years of age, and £1, 1s. 4d. for each unit over five. (This is the present form of the capitation grant of 1853.)

(5) The fee grant. After each completed three months, 2s. 6d. per scholar is paid on the average attendance of the preceding year, the balance being

paid with the annual grant. (This is the fee grant of 1891 unmodified in amount.)

(6) A new aid grant. The yield of rates or subscriptions in the case of poor, council, or voluntary schools had been supplemented in various ways. A grant of 4s. a child was now made to all elementary schools, with the addition of "three halfpence per child for every twopence by which the amount raised by a penny rate falls short of ten shillings per scholar". Or, to put it more briefly, three-quarters of the difference between the produce per scholar of a penny rate and the sum of ten shillings per scholar was thus added. Places raising less than a threepenny rate lost a part of this grant.

(7) Special grants for schools in thinly populated areas. A population of less than two hundred received £15, one of from two to three hundred, £10. Another grant of £10 is given if certain conditions are complied with. There were nearly 5000 of such schools in 1909-10. The number seems to be approaching a maximum.

(8) Special grants of from 1s. 6d. to 7s. a head for certain subjects, domestic work, gardening, &c.

### The Factory Acts

There is no doubt that in the early nineteenth century child labour was shamefully abused. It is to the indignation excited by the exploitation of factory children that we owe the first awakening of the national conscience upon the whole question



of our responsibility to the childhood which we hold in trust. As Mrs. Helen Bosanquet says in *The Strength of the People* "One incidental benefit we owe to it [the factory system] is that it forced into prominence this necessity for protecting childhood from entering prematurely upon the toil of wage-earning. England learned a lesson then which she will never forget. It must not be supposed that the abuse of childhood which took place in the mills was peculiar to them alone; it might have been found abroad in the fields and dark recesses of the mines, but in the fields and the mines it passed unnoticed until it had attracted public attention in the mills and factories."

The condition of the factory apprentices in 1802 may be gathered from the provisions of the Factory Act of that year. The apprentices were each to have one suit of clothes in the year, they were not to be employed for more than twelve hours a day, nor between nine at night and six in the morning, and they were to be instructed during a part of each day. Although this bill passed, it was never put into operation. Shortly after this time Robert Owen actually established free education for all children between the ages of five and ten at his mills at New Lanark, and fixed ten as the minimum age of employment.

The efforts made by Owen and other reformers to legalize an improvement in the general lot of factory apprentices were, however, for many years unavailing. Dr. Kay, in his *Essay on the Moral and Physical Condition of the Working Classes*, says that

the hours of labour began at five a.m. and went on until seven p.m., with two hours' interval for meals. He continues "Prolonged and exhausting labour continued from day to day and from year to year is not calculated to develop the intellectual or moral faculties of man. The dull routine of ceaseless drudgery in which the same mechanical process is ceaselessly repeated resembles the torment of Sisyphus, the toil like the rock recoils perpetually on the weary operative, the mind gathers neither stores nor strength from constant extension and retraction of the same muscles, the intellect slumbers in supine inertness, but the grosser parts of our nature attain a rank development."

The economic revolution which had made the labour of a child as valuable as that of a man had imperceptibly brought about this child slavery, while the dullness and hard commercialism of the men who profited by it put a drag on reform. The case for State intervention was clear, since here no fear of diminishing parental responsibility stood in the way. The responsibility for the health and education of a child employed for twelve hours a day clearly rests with his employer. Many of the children indeed had no homes, but were destitute paupers, purchased from the Poor Law authorities of the great towns for work in the cotton mills. As these children were gathered together in great numbers, it was actually easier, as soon as public opinion had been awakened, to enforce some hours of schooling in their case than in that of the equally neglected vagrants of the streets.

The first Act which placed a limit on the hours of toil and the age of the toilers also provided for compulsory schooling.

By the Act of 1833 the employment of children under nine in textile factories was forbidden. Children between the ages of nine and thirteen were required to produce a voucher of having been at school for two hours a day on six days of the week. Inspectors were appointed to see that the Act was enforced. The school hours no doubt afforded a much-needed rest for the children. The quality of the education given may be judged from the following report of an inspector:—

“There are factory schools of many kinds, from the coal-hole of the engine-house to the highest grade of infant education. The engine-man, slubber, burler, bookkeeper, or wife of any of these, might keep school for the two hours required by the law. Even if a good National or British school were near the factory, the children could not attend, partly, as already explained, because they were usually at work until the school closed for the day, partly because the state of their working clothes made them highly undesirable as scholars or companions.”

The inspector might give the employer leave to deduct a penny from every shilling of the child's wages in order to pay for this education. That the needs of trade were considered more important than those of the children appears still more clearly from the special exceptions made in the case of silk mills. Children were allowed to commence work

at any age in these, they could be employed for ten hours a day during each of the six days of the week, and were exempted from all education.

The Act of 1844 further reduced the hours of work to seven in textile factories, and provided for a school attendance of five hours a day in three non-consecutive days of each week. Subsequent Acts still further raised the age of lawful employment, reduced the hours, and raised the educational qualification required for exemption.

By the Employment of Children Act of 1903, all persons under fourteen are declared to be children and cannot be employed during school hours, except in factories or mines as "half-timers". The number of part-timers decreased from 200,000 in 1876 to 89,000 in 1902, and there were in 1909-10 75,699 part-time scholars out of a total of nearly 5,000,000 children in average attendance.

The regulations governing attendance vary widely in different areas. Partial exemption is permitted from the third to the sixth standard, and total exemption from the fourth to the seventh, according to the locality. The minimum age at which total or partial exemption may be claimed varies according to whether the child is employed in agriculture (partial exemption at eleven), or under the Factory Acts (partial exemption at twelve, total at thirteen). Total exemption may be claimed in many localities at thirteen if the child, after the age of five, has made a certain number of attendances per year for five years previously.

### **Progress from 1870 to 1902**

The renewed activity in educational matters after 1870 raised new problems. The financial changes have already been summarized on pp. 64-68. Those of an administrative nature will now be briefly dealt with, while those which are more intimately related to the actual education of the children will be reserved for Chapter V.

The parts of educational policy which were shaping themselves between 1870 and 1902 were: the degree of assistance to be given to the poorer schools; the control and meaning of education other than elementary; the relations between the central and local authorities, and the constitution of the latter; and the provision for the training of teachers.

### **Elementary and Secondary Education**

The participation of the Education Department in higher forms of education has been principally brought about through the evening schools, the technical schools, the Science and Art Department, and also through the zeal and energy which the School Boards have displayed in attempting to provide a public education other than elementary. The whole question of State-aided secondary education is intimately bound up with elementary, not only on account of the close official connection which now exists between the two Departments of the Board of Education, but also on account of the important part which the secondary schools

now play in the training of elementary teachers. It is necessary then to give a slight sketch of the history of evening and technical school development, as well as of the Science and Art Department.

### Evening Schools

The evening schools of the early nineteenth century arose from a great desire for enlightenment on the part of adults whose education had been neglected in their youth. The rapid improvement in all kinds of machinery had impressed the quickened imaginations of a rural population, who were in process of transformation into a race of mechanics and factory employees. The careers of successful inventors were well told in the literature of the *Self-help* (Smiles) type; diligence, thrift, and education as the gateways to worldly success were suitable watchwords for a nation which was laying the foundations of commercial greatness. There was also a genuine desire to gain learning for its own sake—a desire which has since been dulled by the provision of cheap entertainments, and satisfied, if not satiated, by the very abundance of specialist knowledge which is so easily procured from books. In those days the only outlook into the great world beyond the grey manufacturing towns was to be obtained through books. These were scarce, even in middle-class homes, full of information but didactic, illustrated by unattractive and often misleading woodcuts. Between 1780 and 1830 numerous night schools, evening

lectures, and mechanics' institutes arose to satisfy the demand for information. Among the first of these was Anderson's Institution in Glasgow, in which were continued the lectures given in experimental physics by Dr. John Anderson up to his death in 1796. The lecturer was Professor of Natural Philosophy at the University, and his audience was mainly composed of artisans. Dr. John Birkbeck carried on these lectures from 1799, and in 1804 removed to London, where he greatly assisted the Mechanics' Institute established in 1823. Institutes of this type were founded in Liverpool and Manchester at about the same time, and later on in many other towns.

Their decline or conversion to different uses was chiefly due to the total want of preliminary education on the part of those who attended the lectures. Experience has shown that enthusiasm alone is not sufficient to enable a man already tired with his day's work to complete the tiresome task of mastering those necessary first steps which ought to have been taken when the memory was fresh and spirits elastic.

Another meaning which may be given to evening schools is contained in the title "evening continuation schools". The function of such schools may be taken to be the continuation of either the education of adults who at some period in the past received an elementary education, or that of youths who have just passed from the state of whole-time scholars and are engaged in productive labour during the day. Most authorities are now agreed that the

latter is the more important function, but early regulations seem to indicate a hesitation on this point.

Grants were given to evening, as to day schools, from 1855, and after 1862 from the Science and Art, as well as from the Education Department. The day-school teachers were allowed to supplement their incomes by teaching overtime in the evening schools. Several experiments were made in the way of fixing maximum and minimum ages of scholars for which grants would be given. The most important Code relating to evening schools is that of 1893 which recognized the attendance of persons over twenty-one, and in confirmation of a previous Code (1890) allowed advanced as well as elementary instruction to be given.

### Science and Art Department

A great deal of this education was supported by grants from the Science and Art Department. This independent central authority has also played an important part in the development of elementary education. The origin of the Department is to be found in a sum of £1500 received by the Committee of Trade from the Treasury in 1836 for the foundation of a normal School of Design. It was beginning to be felt even at that time that the workers of a manufacturing nation required some education in the principles of effective ornamentation. The lack of taste in British manufactures was clearly shown at the Great Exhibition of 1851,



and in 1852 a Department of Practical Art was set up. In 1853 a Science Department was added to this. The attempts of the combined Departments to establish schools of science and art were not at first successful, and in 1859 the Science and Art Department settled down to a system of giving grants to teachers and pupils on the result of examinations from South Kensington. These grants were not only useful to teachers in enabling them to subsist in the lean years of payment by results, by teaching in the evening; they have also been of the most material assistance in the introduction of Science and Art into English elementary education. Gradually, as the possibilities of the more elementary science subjects became prominent these were introduced into the ordinary school curriculum, and special grants from the Science and Art Department were replaced by those of the Education Department. That the respective spheres of action overlapped to a considerable extent was shown by an article in the Code of 1872, which stated that no grants were to be paid for examination in those specific subjects on which grants had been, in the preceding year, paid by the Science and Art Department.

### **Public Secondary Education**

The School Boards, by the establishment of evening classes and distributions of grants for specific subjects, including branches of science and art, had thus begun to give an education which

was higher than elementary, but which yet had not a true secondary character. In 1872 special payments were offered by the Science and Art Department for attendance over a period of three years at organized science schools. The first of these schools was established by the Leeds School Board in 1872. The curricula of the Secondary Day Schools A, as they were afterwards called, were at first mainly scientific, but the subsequent introduction of literary subjects made them approximate more closely to the true secondary type.

The illegality of the supply of higher education by School Boards was, however, proved by the Cockerton judgment of 1899. By this case, it was finally decided that a School Board had no power to pay for science and art schools, or advanced classes, out of the school funds.

The enterprise of the School Boards, while illegal, had been in the highest degree favourable to the growth of public secondary education, and had incidentally broadened elementary education by giving an incentive to teachers to study the more advanced branches of their subjects, in order that they might earn the extra grants for evening-school work. It was beginning to be felt, however, that the School Board system had done its best work. In rural districts the areas which they administered were so small that suitable secondary education could not be provided. In some districts it was thought that the School Boards were extravagant. The schools which they set up tended to compete with the endowed secondary schools of

the district, and there was a danger that the latter, without rate-aid, might be crushed out of existence, or at any rate compelled to lower their standards of work. Above all, however, a feeling was growing up that the control of education ought to be in much closer connection with other branches of local administration than was possible under a system of *ad hoc* authorities.

### The New Local Authority

The Royal Commission on Technical Instruction of 1880-4 had recommended that local authorities should be given the power of aiding technical instruction out of the rates. Lord Cross's Royal Commission of 1886-8 had reported in favour of County Councils as general educational authorities and also of municipalities as the authorities for technical education.

By the Technical Instruction Act of 1889, the duty of supplying technical instruction was handed over to the County and Borough Councils which had just been established by the Local Government Act of 1888. The new authorities were allowed to apply a maximum rate of a penny in the pound to this purpose, and in 1890 the produce of the customs and excise duties was handed over to them.<sup>1</sup> The local Councils began to use their powers freely, as they were enabled to do from the wide definition of technical instruction. This included "instruction in the principles of science

<sup>1</sup> About £700,000 a year

and art applicable to industries, as well as any other forms of instruction (including modern languages and commercial and agricultural subjects) which might be sanctioned by the Science and Art Department upon local application, and with Parliamentary assent". The division of responsibility between the School Boards and the Councils caused waste and confusion.

### **The Central Authority Consolidated**

The Royal Commission of 1894-5 proposed that the Councils should be made the authorities for secondary education, with power to assist existing secondary schools and found new ones. It also reported in favour of a unified central authority which should have the general supervision of all public education, whether elementary, technical, or secondary. The Board of Education Act of 1899 and the Education Act of 1902 confirmed and legalized many of the recommendations of these and previous commissions.

The Board of Education has now assumed the powers and responsibilities of the Education Department, Charity Commission (which since the middle of the century has supervised the endowments and efficiency of the endowed schools), and the Science and Art Department. It consists of a President, Lord President of Council, the principal Secretaries of State, the First Commissioner of the Treasury, and the Chancellor of the Exchequer. There is a large staff of officials at the central

office, and a Consultative Committee was appointed in 1900 to assist the Board. It supports an excellent library at Whitehall, and collects and publishes in its special Reports information concerning the educational practice of all civilized nations. These reports, written by experts in their respective branches, not only give an account of what has actually been accomplished, but also contain many highly suggestive chapters on the developments which will take place in the future. Elementary education is more particularly dealt with in the "Suggestions to Teachers", which contain an epitome of the best practice in selecting and arranging the subject-matter of elementary instruction. It is distinctly stated, however, that they are to be taken literally as suggestions, and in no way as binding teachers to a prescribed course of work.

The present policy of the Board has been to use the great influence which it exerts through regulations and inspectors only in the direction of demanding a certain minimum and of setting an example. Whether an increasingly powerful and official body will be able to maintain this attitude is an open question. The considerable powers possessed by local authorities ought certainly to assist in preserving the healthy variety in our public system.

### Higher Elementary Schools

Another development which calls for attention here is the recognition of the higher elementary school by a Minute of 1900. Lord Cross's Commission of 1888 had expressed the opinion that "if the curriculum of the higher elementary schools is restricted within due limits, avoiding all attempts to invade the ground properly belonging to secondary schools, such schools may prove a useful addition to our school machinery for primary education. The instruction given is to be more complete than that at the elementary school, and yet not to be of secondary standard. Most suitably it has to meet the special needs of a locality, and will generally specialize to some extent in science or mathematics. The classes are smaller (from thirty to forty), the grants are higher, and a higher standard of work is expected." There were in July, 1911, forty-six such schools.

The Board is at present unsatisfied with the experiment for various reasons. The children are supposed to join at twelve for a minimum three-years' and permissive four-years' course. More than one-third, however, in 1910-1 left before they were fourteen, and many of those who stayed on were receiving education which was really secondary in character. Others again had reached a standard scarcely higher than that of a first-rate elementary school. The position of these schools in the scheme of education is undoubtedly difficult, since they are not definitely vocational, but pre-vocational, while,

on the other hand, the line between an extended elementary and a secondary education is not easy to draw.

### Act of 1902

The chief changes introduced by the Act of 1902 have been the unification of the Local Education Authority, and a rearrangement of the relations between the board and voluntary, or as they were to be called henceforth, the provided and non-provided schools. The new local education authorities were to consist of Education Committees chosen by the Councils of the Counties, County Boroughs, non-County Boroughs, and Urban Districts. They were to contain a majority of members who were at the same time members of the County, &c., Councils. The Councils were also obliged to include in their Committees other persons of experience (nominated by associations of voluntary schools, &c.), and women as well as men. All the duties of the School Boards and school attendance committees were vested in these Education Committees, except the power of levying rates and borrowing money, which remained with the local councils. There was no maximum fixed to the amount of the rate for purposes of elementary education.

The authority for elementary education in non-County Boroughs with a population under 10,000, and Urban Districts with a population under 20,000, was to be the Council of the County in which such boroughs or districts were situated. The elementary education in non-County Boroughs and Urban

Districts with a population above these limits was in the hands of their own Councils. The County and County Borough Councils were also required to supply such higher education as might be needed.

The schools provided by County Councils were each to have a body of managers appointed partly by the County Council and partly by the minor local authority, that is to say the Borough, Urban District, or Parish Council. The schools provided by Borough or Urban District Councils might or might not have a body of managers. The body in the case of non-provided schools consisted of not more than four foundation managers appointed according to the trust deeds of the school, and not more than two others appointed by the Local Education Authority. These managers were to retain their right of appointment and dismissal of teachers subject to the consent of the local authority, which was not to be withheld except on educational grounds.

The religious instruction in elementary schools provided by the Local Education Authority was to be of the undenominational kind already defined by the Cowper-Temple clause. In the non-provided schools the religious instruction was to be in accordance with the provision, if any, of the trust deed relating thereto; it is controlled by the managers, and the attendance of children at such instruction is subject to a conscience clause. In non-provided as well as in provided schools the secular instruction must be given in accordance with the current Code and the regulations of the Local Education Authority.



Thus the dual authority set up in 1870 has been replaced by a single authority, the local councils who are entrusted with the general control and support of all schools within their area. The immediate supervision of many schools still rests with bodies of managers. The managers of the non-provided schools have still certain powers, but they have surrendered a great part of their authority in return for the support of the rates, which has been, since 1902, extended to them also. The measure, like all which have preceded it, is a compromise between conflicting interests. It is to be hoped that this and any future arrangements that may be made will be worked in a spirit of mutual concessions which always regards the interests of the children as paramount.

## CHAPTER IV

### THE TRAINING OF TEACHERS

As has been already mentioned, the substitution of pupil teachers for monitors, which was nearly complete by 1857, was thought to have overcome the whole educational difficulty. Here at last was a true system of apprenticeship which would supply abundant recruits for the higher branches of the profession. The art of class management practised from the age of fourteen onwards would never be forgotten, while the general education given by the headmaster to his apprentice would cover precisely that knowledge which he would have to impart again. Or, if the pupil teacher succeeded in gaining a place at the training college, the five years which he had already spent as paid assistant would enable him to profit in an unusual degree by the lectures on method. The higher education given would also be turned to good account, since he would be quick to take those views of it which would be useful for his professional work. A high value was placed upon the body of pupil teachers thus created, by successive inspectors. Matthew Arnold describes them as the "sinews of primary instruction". In 1861 the number had reached a maximum of 13,871.

By this time, however, certain disadvantages had

become apparent, and changes were begun which finally had the effect of altogether destroying the character of apprenticeship which was one of the advantages of the system. Already the introduction of assistant masters had made it possible and desirable to divide schools into separate classrooms. Secluded in these, the pupil teacher gained responsibility but lost much of the valuable supervision and advice of the headmaster. The personal relations between master and apprentice were further loosened by the economy of the Revised Code, which transferred to the managers the grants which were formerly paid directly to the master on account of his apprentice. The apprentices' salaries also were now fixed by the managers, and were, as a matter of fact, reduced to an average of £13, 9s. for boys and £12, 15s. for girls, from the former average of £15 paid directly by the State. The personal contract between master and apprentice was replaced by an indenture with the managers. The seven and a half hours' individual instruction which the apprentice received each week was reduced to five hours, and this instruction might now be given in evening classes.

It is not surprising that the number of candidates rapidly fell. So serious was the deficit, that in 1875 grants were again paid directly to teachers for the instruction of pupil teachers. The whole profession had changed so much, however, that a return to the former system would have been impossible, even if it had been desirable. The ever-increasing administrative work laid upon the headmasters of the

large board schools, as well as the broadening of the syllabus, made it impossible for them to teach the apprentices individually in all subjects.

In 1875 the London School Board initiated a scheme according to which the pupil teachers should receive their instruction from specially selected staffs at centres away from the schools. Although this was held at the time to be against the regulations of the Education Department, these regulations were progressively relaxed. In 1875, certificated assistant teachers employed in the same school as the pupil teachers were allowed to take part in their instruction, and finally in 1880 this duty could be performed by any certificated teachers. The pupil teacher's hours of professional work had been shortened to three a day in 1884, and the time thus gained was devoted to their instruction in the newly established pupil-teacher centres. Their training was thus apparently placed on a firmer basis, and the majority report of the Royal Commission on Education 1886-8 considered that these central classes were likely to furnish the most reliable and suitable supply of recruits for the teaching profession.

The minority report, however, called attention to serious defects in the quality of the pupil teachers in the following words: "The complaint is general that the pupil teachers teach badly and are badly taught. The wretched state of their preparation when they enter the training college will be dwelt on when that part of our educational system is dealt with, and the remarkable thing is that the

witnesses, while complaining generally of the backwardness and ignorance of pupil teachers, lay special stress on their inability to teach, and on their ignorance of school management." The reason of the latter part of this indictment is evident, for as has already been said the advantages of apprenticeship had vanished, and the pupil teachers were too often left to their own devices. This practice had, of course, some redeeming features. The self-reliance and resourcefulness characteristic of our nation made them not slow to accept the early responsibility cast upon them as regular members of the staff. No doubt they made the most of a limited stock of knowledge, and of the tricks of method which they remembered from their by no means distant schooldays (apprenticeship might begin at fourteen). Probably, also, many "scorned delights and lived laborious days", devoting their evenings to study and developing into teachers of as great skill and insight as perhaps can ever be produced by any method of training.

The Department's Report of 1898 calls attention to the inequality of the pupil-teacher centres. Some were mere cramming classes, others were well equipped, and only prevented by their aim from giving instruction of high type. The nature of the change desired was indicated as follows: "The time has come when the Primary School ideal that has been followed heretofore in the construction of the courses for Pupil Teachers should give way to something higher. The perpetuation of elementary syllabuses and studies in the Pupil-Teacher course,

and even in the Training College course, has hitherto constituted a serious barrier between Primary and Secondary education. . . . We look forward to the ultimate conversion of those Centres which are well staffed and properly equipped into real Secondary Schools, where, although, perhaps, intending teachers may be in the majority, they will have ampler time for their studies and will be instructed side by side with pupils who have other careers in view. . . .”

These proposals were not at once carried into effect. An early attempt to render a secondary school available for pupil teachers was that made by the Borough Council and School Board of Scarborough. In the secondary school established by these authorities, intending pupil teachers were trained until the age of sixteen. After this age, they began to teach, but still continued at school during part of their time. One obstacle to the general adoption of this plan was the lack of secondary schools. The Act of 1902, however, which placed the provision of these schools in the hands of the newly constituted education committees, also affirmed that the preliminary training of teachers belonged to higher education, and was therefore to be entrusted to the specified local authorities (see p. 83).

By 1907 many secondary schools had been recognized as pupil-teacher centres. The majority of teachers were still trained in the large centres, but there was an intention to replace these by, or convert them into, secondary schools. It was not

now, in most cases, necessary for a boy or girl who had been trained in a secondary school, to break off his education at a critical point and face the new conditions of a pupil-teacher centre in order to enter the teaching profession.

Certain new difficulties, however, arose from the unusual requirements of those pupils who, with only a part of their time free, were recommended by the Board to keep in touch, not only with the studies, but also with the social life of the school. In some cases they gained their teaching practice on alternate days; in others the "block system" was employed, under which alternate terms are spent in learning and teaching.

The regulations of 1906-7 raised the commencing age of pupil teachers to between sixteen and seventeen, and limited their hours of employment to half the time during which the elementary schools are open. It is strongly recommended by the Board that children who are intending to be teachers should enter the secondary schools at the age of twelve. The practice of remaining in the elementary schools until fourteen is a survival from the time when the apprenticeship and attendance at the pupil-teacher centre began at that age.

The secondary school is now intended for the needs of all children who promise to benefit by an extended education. Among these, not the least important are the future elementary school teachers, whose training is not to be differentiated from that of their fellows. It may, by a regulation of 1906-7, be continued without interruption until the age of

seventeen or eighteen, when they may enter upon a period of more advanced training in a training college.

The postponement of teaching practice to an ever later period of the training (see p. 100) is hardly likely to meet with the approval of those who were convinced of the peculiar advantages of the older system. On behalf of the present plan, however, it may be urged that the student may and does in time digest his knowledge, and that it is no more difficult to acquire school-craft in later life than it is to assimilate the subject-matter of instruction. The present leisurely way is without doubt the easier for the teacher in training, and will give in the long run an increased refinement and depth of insight to the really capable man. The less capable and the indolent would probably be more effective teachers with a less load of learning and the added discipline of an early responsibility.

The supply of teachers trained on the new plan has not been, and probably will not be for many years, sufficient to meet the demand. Consequently, it is stated in the Code of 1909 that, for the present, supplementary teachers, provisional assistant teachers, and pupil teachers may be recognized as part of the staff.

The number of certificated teachers to each thousand children in 1908-12 is given on p. 194. The figures are the average for the whole country. The statistics for the different kinds of areas will be found in the Board of Education Annual Reports, Cd. b. 116, p. 89. Certificated teachers now (1911-2)



form about 65 per cent of the whole. Of these, rather less than one-third are men.<sup>1</sup> The percentage of the men who, in addition to their certificate examination, have been through a course of training is 72 per cent, while of the women 50 per cent are trained.

The numbers of uncertificated teachers for each thousand children is lowest in London, being less than one out of a total of twenty-six teachers, and highest in the counties, being eleven out of thirty-three teachers. Uncertificated teachers still form some 26 per cent of the whole in England and about 40 per cent in Wales. A further 8 per cent of all the teachers in England and 12 per cent of those in Wales belong to the grade of "supplementary" teachers.

Women have always formed the majority of these. By "Article 68" young women over eighteen, of good character, who had been approved by the inspector, could be recognized as part of the staff. For reasons of economy, unqualified teachers were largely employed by local authorities, the numbers increasing from a little over 500 in 1876 to over 1700 in 1902. The numbers are now decreasing steadily, and the recognition of men in this grade has now ceased.

### Present State of Preliminary Training

There are now two approaches to the profession which involve some teaching between the ages of sixteen and seventeen. The new class of student

<sup>1</sup> In 1850 about three-quarters of the teachers were men, and in 1870 the numbers of men and women were nearly equal.

teachers who appeared in the Statistics of 1910-1 are boys and girls over seventeen who have been in regular attendance at a secondary school during the previous three years or more. They have to be certified by the Principal of the secondary school as fit and proper persons to become elementary school teachers. They are employed under written agreement for part of their time and receive salaries of from £15 to £55 a year. Great efforts are being made to increase the numbers of teachers who receive this kind of preliminary training. Assistance is given by the Board in the form of bursaries of £10 (with additional maintenance allowance) for youths between sixteen and eighteen, in order that they may be enabled to spend another year in whole-time attendance at the secondary school. Many free places are reserved in those which receive Government assistance.<sup>1</sup> The local authority usually offers scholarships for the years preceding sixteen.

The following table from P. Sandiford's *Training of Teachers in England and Wales* summarizes the steps in the training of pupil and student teachers.

#### PUPIL TEACHERS

Ages	How engaged
5-12	Pupil in elementary school.
12-14	Pupil in elementary or secondary school.
14-16	Pupil in secondary school or pupil-teacher class
16-18	Pupil teacher studying part time in centre, and teaching part time in the elementary school.

<sup>1</sup> In 1911 the percentage of free places actually held in schools receiving grants was thirty-two to thirty-eight

## BURSARS AND STUDENT TEACHERS

Ages	How engaged
5-12	Pupil in elementary school.
12-16	Pupil in secondary school.
16-17	Bursar.
17-18	Student teacher in elementary school.

As the pupil-teacher centres become replaced by, or are transformed into, secondary schools, the difference between the two modes of preliminary training will become so slight that a small alteration in the regulations might make them identical. When it has become the rule that all the candidates for the training college shall have had a secondary education, the regulation of the further training will become a much simpler matter. It is being found that the two-years' students who enter a residential or day training college, with the purpose of taking the Board's qualifying examination, already possess sufficient knowledge to teach the ordinary subjects—English, geography, mathematics, &c. Time is therefore saved for the professional subjects, theory and practice of education, and the hygiene and physical training which is of such fundamental importance to the nation.

### Training Colleges

The natural and ordinary sequel to one of the kinds of preliminary training is a more or less extended residence in a training college. It has already been mentioned that the need for systematic training in a residential college was early felt

by the two societies, and that the grant of £10,000 in 1839 enabled them to open St. Mark's, Chelsea, in 1841 (National Society) and the Borough Road in 1842 (British Society). Another early establishment, the Battersea Normal School which had been founded by Dr. Kay, was handed over to the National Society in 1844. This school had been begun in a very humble way with a few students "who were chosen rather for their character than their attainments". The young men who had been in charge of village or workhouse schools were found to be even worse prepared than the boys of thirteen taken straight from the village of Norwood, and instruction had to be begun with the rudiments. It is recorded that there was also instruction in gardening and household work, and that the vicar of Battersea allowed his village school to be used for teaching practice. Church services were attended morning and evening, abstracts of the sermons were read and made the basis of compositions.

The whole cost for each pupil was about £50 a year, and the fees payable by the pupils were about £30. It was estimated that fifty schoolmasters would annually leave the college with a certificate of one year's training.

The number of training colleges increased, but not nearly fast enough to meet the demand. In 1851 there were 25 colleges; in 1870, 33. Between 1870 and 1882 the number of children on the rolls of the schools had increased by 3,000,000. The number of certificated teachers had increased 119

per cent, but only 6 new training colleges had been built. Two of these were denominational. The necessary increase in facilities for training could, it was thought, be provided if the school boards were empowered to establish training colleges, and a resolution to this effect was first passed by the Birmingham School Board in 1882.

The foundation of the newer universities in the large centres made it possible to follow the plan which had been adopted by the Code of 1873 in Scotland of permitting elementary school teachers to use the courses and examinations of the universities. A connection between teachers and the universities had already been made by the provision of courses for teachers at Owens College, and by means of the Teachers' University Association at Oxford and Cambridge. The late Sir Nathan Bodington also proposed a scheme for a day training college in connection with the Yorkshire College, Leeds.

In the Final Report of Lord Cross's Commission, 1888, it was strongly recommended that such colleges should be established, not, as previously proposed, by the school boards, but by the universities. In accordance with this recommendation, day training colleges were recognized by the Code of 1890. By 1904 there were 19 of these in existence, in addition to the 32 Church of England, 2 undenominational, 6 British, 2 Wesleyan, and 3 Roman Catholic.

In this year the new local authorities were empowered to establish non-residential training colleges

not in connection with a university.<sup>1</sup> The number of these institutions has increased rapidly in recent years. During the period 1908-11 the number of places provided in them by the local authorities, or in the elementary training departments of universities, has risen from 6974 to 7705. The number of places in the denominational colleges remained almost stationary at or about 4900 during the same three years, 1908-11.

The number of applicants for places in the training colleges still exceeds the number of places. The selection of candidates devolves upon the governing body of the college, who may be guided by the results of the Board's preliminary or other recognized examinations which are demanded as a condition of entry. A candidate may not be refused without a sufficient reason, and by the regulations of 1911 it was provided that one-half of the vacant places should be free from any religious test.

The present training college forms no inconsiderable part of the university or other institution to which it is attached, while the independent college, often a fine building standing in its own grounds, with its full provision for a complete and enjoyable intellectual corporate life, is the kind of place which its fortunate *alumni* may dream of in after-years. It is no wonder that admission is eagerly sought.

An interesting account of the main features of

<sup>1</sup> These institutions were substantially assisted by a grant of 25 per cent of the cost of building in 1905, a grant which was raised to 75 per cent in 1906.

the life in such institutions as they strike one who writes from an American point of view is given in the Columbia University Contributions to Education (No. 33) by P. Sandiford. The author, in this work, mentions a few particulars in which the English system might be improved. Especially does he comment upon the lack of educational psychology and of the history of education; also on the general deficiency in model, practice, and experimental schools conducted for the special use and benefit of the college.

The former objection can hardly be urged against those training colleges which are attached to universities, since the professional subject of education includes both history and psychology. The addition of these subjects as well as professional practice to the ordinary B.A. or B.Sc course has been found to entail heavy work upon the students; and recently, in response to an expression of opinion from the universities, the Board has made provision for a four-years' course which should leave the students more free for their academic studies, by concentrating the theory and practice of education into the fourth year.

Together with this change there has been a revision of the grants. The Board has decided in the future to pay the fees of students at the university, instead of allowing them to pay their own fees out of the grants as previously. The following is the scale of the annual maintenance allowances for four-year students:—

For men living at hostels	...	£35
For men living elsewhere	...	£15
For women living at hostels	...	£25
For women living elsewhere	...	£10

The grants differ slightly from those formerly paid to three-year students. The four-years' course is now to be the rule, and the Board of Education expect that "after 1912, Elementary Training Departments adopting the four-years' course will cease to admit three-year students" (Board of Education Report, 1910-1 [Cd 6116])<sup>1</sup>

It is intended that the first three years shall be devoted wholly or mainly to study for a degree, although the way is also left open for such short periods of teaching as will serve to keep the student in touch with his professional work. In his fourth year the graduate in Arts should gain such a thorough knowledge of some branch of literature, history, &c., as will convert him into an enthusiast, while the Science graduate may perhaps distinguish himself by working out independently a series of class experiments or by doing some other investigation of an original nature, bearing on his future work.

The older residential training colleges have still much to offer in the place of the specialist training of the universities. In particular, the fact that the courses are designed for teachers, and only teachers, and are conducted on the tutorial system, constitutes a great advantage. There is no doubt that

<sup>1</sup> Ten university elementary training departments had decided to admit four-year students in 1911-2.



the influence of the new and of the older residential training colleges upon one another has been most beneficial. As Professor Sadler says in his account of the origin and growth of university day training colleges: "The residential colleges were impelled to raise the intellectual standard of their work: the day training colleges were reminded of the value of hostels and halls of residence in developing corporate life".

## CHAPTER V

### THE GROWTH OF THE CURRICULUM

As has been already pointed out, the defects of elementary school instruction in the early part of the century were due mainly to four causes: the irregular attendance of children, the slender qualifications of the teachers, the poverty of equipment of the schools, and the narrow nature of the curriculum. Until the first three causes had been removed, there was little chance of successfully insisting on a uniformly broad and interesting subject-matter of instruction.

The teachers of the common day schools were drawn freely from "domestic servants out of place, discharged barmaids, vendors of toys or lollipops, keepers of small eating-houses, of mangles, or of small lodging-houses, needlewomen who take in plain or shop work", and many other illiterate classes (Newcastle Report). Even the better teachers were hastily trained, and had to supervise impossibly large classes. There was also a general lack of suitable books and apparatus. "The schoolbooks in use are not well calculated to interest children. In 1848 those in general use among the lower classes are the Society's books Nos. I and II, the parables, miracles, discourses of our Lord, and the Sermon on the

Mount." The secular books were so few in number that the children read them over and over again until they knew them by heart. It may be noted in passing that this difficulty had been more or less overcome by 1860 (M. Arnold); since there were now many books to be had, although these were often of an unsuitable nature, compiled by unqualified persons.

The want of apparatus was partly met by the extension of the State grant in 1847 to the purchase of maps and globes. It was noted in the Newcastle Report that: "The entire want of useful apparatus has been a great hindrance to the advance of science in many of our schools. Even from the want of a single blackboard the study of arithmetic, linear drawing, and vocal music has been much impeded, whilst an almost incredible extent of ignorance in geography, both local and general, has been occasioned by the absence of maps and globes" The results of the bad equipment of teachers and classrooms were on the whole such as might be expected. "The mass of the children get little more than a trick of mechanically pronouncing the letters, and the words which they read convey hardly any ideas to their minds. The children are not taught elementary subjects so as to excite their intelligence." A somewhat different impression, however, is given by the report of an inspector in 1854:—

"A boy of twelve, of fair average intelligence and attainments, has learned—

- “To read fluently and with intelligence any work of general information that is likely to come in his way;
- “To write very neatly and correctly from dictation and from memory, and to express himself in tolerably correct language;
- “To work elementary rules of arithmetic, including decimal and vulgar fractions, duodecimals and interest, with accuracy and rapidity;
- “To parse sentences and to explain their construction;
- “To know the elements of English history;
- “To have a satisfactory knowledge of geography, physical and political, and to draw maps well.”

It was further stated that useful and attractive lessons were given on physical science, natural history, and political economy, and further that drawing was well taught in some schools. Geography and history had been taught even earlier than this (1820) in the best monitorial schools, such as that at the Borough Road. (See *The Reminiscences of an Octogenarian*, James Bonwick.) In 1884 the curriculum of the Cheadle Church School, Cheshire, included the following extra subjects: geography, English grammar, etymology, history, vocal music, and linear drawing. A school at King's Somborne, Hampshire, was in advance of its times. The walls were covered with diagrams illustrating graphically the relations between various weights and measures, while the children took part in such

exercises as the calculation of the area of a window, and the verification of the result by means of measurement.

In the Department's Report for 1859 it is stated that about 7000 schools were visited on account of grants. The numbers (to the nearest hundred) in which Holy Scriptures were taught were 5200, Catechism 5000, reading 6600, writing 6600, arithmetic 6600, geography 5900, grammar 5300, history 2300, music (from notes) 500, drawing 500. In about ninety of the schools taking each subject the teaching was said to be good, moderate in about 10 per cent, and poor in about 1 per cent. But arithmetic, grammar, geography, and history were not so well taught, for in 17 to 25 per cent of the schools taking these subjects the instruction was only moderate, and it was bad in 2 per cent of the schools taking arithmetic and grammar.

Training in gardening for boys and housecraft for girls was given as early as 1833, the facilities for the latter often being found in the vicarage kitchen. Needlework was likewise attempted, and when a difficulty was experienced in arranging for classes at the schools "the ladies enjoined each girl to get instruction from her mother and then went round to ascertain how they were getting on, and to give advice and assistance". The same inspector reports that not much progress was made in other branches of industrial work "There is a very foolish prejudice among mothers against allowing their children to take a share in scrubbing the school floor by way of a lesson".

Somehow or other in those early days some children were taught a good many things, and these courageous attempts have their importance as a testimony to what could be done by voluntary efforts, and also as an example of what might reasonably be required later when the choice of instruction should be dictated by the State.

Altogether the Newcastle Commission was justified in reporting that the existing system had established a good type of education, and all that was required was to spread it over the country. The first need, however, more pressing than that of enlarging the curriculum, was that of reforming the elementary instruction in the less advanced schools. A certain minimum of efficiency was ensured by the Revised Code of 1862. One most unfortunate result of this system was to restrict the whole instruction to the meagre curriculum for which alone grants would be paid. Matthew Arnold, writing in 1867, says "Meanwhile the matters of language, geography, history, by which, in general, instruction first gets hold of a child's mind and becomes stimulating and interesting to him, have in the great majority of schools fallen into disuse". It was in this very year that the Education Department first officially recognized the desirability of a wider circle of instruction. A minute of 1867 offered an increased grant to schools for the teaching of at least one additional "specific" subject, such as grammar, history, geography.

In the Code of 1871, which raised the standards of examination in reading, writing, and arithmetic,

it was still taken for granted that these were the only necessary parts of an elementary education. All other subjects were extras—either to be learnt in ex-standards or in evening schools with the help of the Science and Art Department's grants, or (since 1867) to be encouraged by small additional grants. The subjects which received these grants were now (1871) geography, history, grammar, algebra, geometry, natural philosophy, physical geography, the natural sciences, political economy, languages, English literature, Latin, French, German, as well as "any definite subject of instruction extending over the classes to be examined in Standards IV, V, and VI, and taught according to a graduated scheme of which the Inspector can report that it is well adapted to the capacity of the children, and is sufficiently distinct from the ordinary reading-book lesson to justify its description as a specific subject of instruction". This imposing syllabus was, of course, never undertaken in its entirety. Not more than two "specifics" might in any case be taught at the same time, and as a matter of fact the number of children examined in them was always small, being only 3.6 per cent of the total number on books in 1872, and 3.7 per cent in 1875.

In 1872, 71,507 children altogether were examined in specific subjects. Geography was a favourite, and grammar, history, and English literature were also popular, being each taken by ten times as many children as were learning any branch of mathematics or natural sciences. The

introduction of the "content" subjects has been slow in England, and their recognition as a necessary part of the curriculum slower still. But after 1870 several forces have been at work to accelerate this change. The increased power and responsibility of local authorities, as represented by the school boards, developed a local patriotism which was active in providing facilities for an early introduction to the methods of those experimental sciences which were then being applied with such signal success to every department of human activity. The dissatisfaction freely expressed by Huxley, Spencer, Matthew Arnold, and others with the slight and unsatisfying curriculum supplied definite reasons and directions for the change. Huxley compares reading and writing to a knife and fork without meat. In another place they are "the keys of the wisdom box". Experience soon proved that the contents of the box were of an equal or greater importance, for the keys were soon disused, or used for unworthy purposes, unless a real taste for the contents had also been acquired during the school period.

In 1868, however, Huxley could write with truth: "Modern geography, modern history, modern literature; the English language as a language, the whole circle of the sciences, physical, moral, and social, are even more completely ignored in the higher than in the lower schools". In his *Essays on Scientific Education* (1869), *Educational Value of the Natural History Sciences* (1854), he insists that "Biology needs no apologist when she demands



a place—and a prominent place—in any scheme of education worthy the name . . . it appears to me that the common facts of biology—the uses of parts of the body—the names and habits of the living creatures that surround us—may be taught with advantage to the youngest child”.

Herbert Spencer (*Essays on Education*, 1854-9) takes up the position that the more essential should be taught in preference to the less essential, the useful before the ornamental. English education, he complains, neglects the plant for the flower.

It is difficult to estimate the effect of these two series of essays, appearing as they did at the critical turning-point of English education and their teaching having the great authority of Huxley and Spencer. Although both writers reserved their severest condemnation for the middle- and upper-class schools of the time, yet their writings had a more immediate, and for a long time a more far-reaching effect in the elementary schools. Huxley had the greater direct influence as an active member of the London School Board 1870-2. An official endorsement of the new views as to what constituted a liberal education was the Report of the Select Committee on the Scientific Instruction of the Industrial Classes, which emphasized the necessity of including instruction in drawing, physical geography, and natural phenomena in the curriculum for all children.

By the important Code of 1875 an attempt was made to further distinguish between the relative values of the branches of instruction. These were now classified into—

1. The elementary subjects — reading, writing, arithmetic, and needlework for girls Obligatory in all schools.
2. Class subjects, which, if taught, had to be taught from Standard I up through the whole school. Proficiency in these was judged by the performance of the class, not of individual scholars. The subjects were grammar, geography, history, and plain needlework. Not more than two of these might be taken.
3. Specific subjects, which might be taught from Standards IV–VI both inclusive. Proficiency in these was judged by the results of individual examination. No child who had not passed Standard VI could earn a grant in more than two. They were — mathematics (algebra, Euclid, and mensuration), Latin, French, German, mechanics, animal physiology, physical geography, botany, domestic economy (for girls).

In 1880 greater freedom was given to managers in the choice of class subjects, for in the Code of that year the list of four was extended so as to include any others which might reasonably be accepted as special branches of instruction, and properly treated in reading-books. This clause, however, produced little change in the number of subjects actually taken. In 1882 only eleven schools offered courses in natural history, eight in domestic economy, one in agriculture, and one

in mensuration. From this time on, however, the number of children examined in mathematics, science, and the practical subjects (domestic economy and handicraft) steadily increased. New branches of knowledge or skill were introduced from time to time as "specific" subjects (e.g. book-keeping in 1890), while the specific subjects in their turn were being continually transferred to the category of "class" subjects.

By 1882 the class subjects were:—English (including literature and grammar), geography, history, needlework, physical geography, and elementary science. From this time on until 1890 English was particularly encouraged as a class subject, for it was enacted that if any subjects were taken throughout the school, English had to be one. The effect of this was a large increase in the number examined in English. By 1890 it was taught in 20,304 departments for elder children, geography in 12,367, history in 414, elementary science in 32. This rule was relaxed in 1895, and the number of departments presenting English fell accordingly to 16,280, while those presenting geography rose to 15,702. The greatest change, however, was in the numbers of departments receiving instruction in history and elementary science. The former had increased fourfold between 1890 and 1892, the latter thirty-six fold in the same period, while by 1895 the numbers had risen to 3597 and 1396 respectively.

Undoubtedly the tentative teaching of a large number of subjects, each one to a comparatively

small number of children, has been the means by which the State and local authorities have experimentally discovered on a small scale the utility or otherwise of the numerous extensions to the elementary curriculum which have been suggested from time to time. The nature and results of these experiments can only be indicated here.

In 1890 the order of preference was: Algebra (30,035 children), domestic economy (23,094), animal physiology (15,842), mechanics (11,662), French (7232), magnetism and electricity (2293), chemistry (2007), botany (1830), agriculture (1228), sound, light, and heat (1183), Euclid and mensuration (977), Latin (360), bookkeeping (30). In 1895 the numbers had risen in most cases, but Latin, agriculture, and sound, light, and heat had decreased in popularity. Besides these, German, shorthand, domestic economy (for girls), elementary science, fruit culture, geology, history (advanced), horticulture, hygiene, manual instruction and applied drawing, natural philosophy, navigation, practical science, political economy and social economy have all appeared from time to time. The whole of these were, however, only taken by less than 100 children altogether from 1872-6 inclusive, by none until 1884, rising then from 2 in that year gradually to 1826 in 1895.

One of the most noticeable features of the curriculum was the excessive subdivision. Knowledge, according to the opinion of that day, could be divided into separate compartments, from which, to

use Huxley's simile, the teachers' buckets could be filled, the contents being afterwards measured out in suitable doses and poured into the children. The separation of physics into mechanics, heat, sound, and light, of magnetism and electricity, of physical geography from geography (class subject, 1882), and of Euclid from mensuration (from 1872-8 and from 1891-5) are typical examples.<sup>1</sup>

It is widely recognized now that, for the purposes of the elementary school, no well-marked line can be drawn between, say, mensuration, geometry, geometrical drawing, and practical arithmetic. Simple exercises in measurements of length and volume, used so as to lead up to a comprehension of units and numerics and arithmetical operations generally, now form an indispensable part of the courses in arithmetic as outlined in the Board's *Suggestions to Teachers*. The same holds good of general elementary science, which is taught so as to include not all, but a selection of the specific science subjects of former times, which have been found by experience suitable for the needs of young children. The separation into physics, chemistry, and mechanics only takes place in the highest classes, if at all. In fact a curriculum divided according to the university plan has been found to lead to a lecture method of teaching.

The parts of knowledge were considered separately, and their relation to the whole was lost

<sup>1</sup> From 1876-82 algebra, Euclid, and mensuration were included in one, but separated again in 1882 into algebra, and Euclid and mensuration.

sight of, since the co-ordination of these parts (a task quite difficult enough even for the university student) was more or less left to the children themselves. Many of these subjects were undoubtedly introduced for the sake of earning a grant, and without due consideration of their educational value. In 1879-80 the Education Department, in raising the minimum standard of presentation from IV to V, recorded their opinion: "We have done so because a large number of the children in Standard IV, on which they ought to enter at nine years of age, are not only not qualified to commence the study of these advanced subjects, but are not likely to remain long enough at school to be able to make any reasonable progress in any one or more of them. In a very large proportion of the country, children of ten years of age and upwards who have passed St. IV, being freed from the obligation to attend school, are entitled to go to work and they do so. Out of 193,596 children presented in that standard in 1878 as many as 78,566 disappeared from our schools in 1879, while the 95,510 scholars in St. V of 1878 fell in the year to 42,184. Former experience proved that the first and easiest stages of some of the specific subjects were taught in many schools merely as a means of earning larger grants." (Sadler and Edwards' Special Reports of the Board of Education, vol. i, p. 61.) It was recognized as an anomaly that children should be turned out with a smattering of, say, electricity or Latin, but unable to read correctly or write a good letter, and incapable of dealing intelligently

with ratio and proportion. The Education Department had by this time abundant data for deciding which subjects would, under a system of free choice, be taught in the vast majority of schools. These were the class subjects: English, geography, history, and elementary science (1895); the old obligatory subjects—reading, writing, and arithmetic. Certain specific subjects, such as algebra, mechanics, animal physiology, domestic economy, were also found to be taken by a preponderating number of the children presented. It was felt to be no longer possible to make artificial lines of demarcation and to distinguish so minutely between more or less necessary parts of instruction. The change to a system of fewer restrictions upon the teachers' choice and correlation of subjects was also materially assisted by the abolition of the annual examinations of all the children in obligatory and specific subjects (1895-7), and the consequent disappearance of the system of differing grants.

An important lead in this direction was also given by the report of Royal Commission (1888) appointed to enquire into the working of elementary Education Acts. It was recommended here that "As far as possible all children ought to be grounded in all four of the 'class' subjects, and where this was impossible, the choice should be left to the school authorities". The following list was considered essential. Reading, writing, arithmetic; needlework (for girls), linear drawing (for boys), singing; English (so as to give the children an adequate knowledge of their mother tongue);

English history taught by means of reading-books, geography, especially of the British Empire; lessons on common objects in the lower standards, leading up to a knowledge of elementary science in the higher. (Report of Board of Education, 1910-1, p. 16.)

The special grants were replaced in 1900 by a single "block grant" of 22s. or 21s. a head. The subjects which were to be taught "as a rule" in all schools were: English, arithmetic; drawing (for boys); needlework (for girls); lessons, including object lessons on geography, history, common things, singing, and physical exercises (1903). These need not all be taught in every class, and one or more may be left out with permission. An extensive list including algebra, Euclid, mensuration, mechanics, physics, elementary physiology, and chemistry; animal physiology, hygiene, botany, principles of agriculture, horticulture, navigation; Latin, French, Welsh (in Wales), German; book-keeping, shorthand; domestic economy or domestic science; drawing (for girls), and needlework (for boys), took the place of the old specific subjects. One or more of these might be selected, if in the opinion of the inspector they seemed desirable: but, as has been already indicated, they no longer received special grants. Grants were, however, in 1902, and still are, given for the home, farm, and handicraft subjects which require special instructors and equipment. There were, in 1902, 23,295 departments for older children, and in nearly all of them all the necessary subjects were taught. Of the



special subjects, drawing was taught in 20,040 departments, algebra in 1355, domestic economy 1027, French 719, science 574, shorthand 537, mensuration 395, animal physiology 320, mechanics 299. The cookery grant was paid for 202,534 girls, laundry 28,413, dairy 9, gardening 4359, manual instruction 100,932, household management 14,518. At the present day the ordinary subjects of instruction are English language, handwriting, arithmetic, drawing, observation lessons, and nature study, geography, history, singing, hygiene, and physical training, domestic subjects for girls. The principal change since 1902 has been the inclusion of drawing for both boys and girls as a necessary part of instruction, and the substitution of hygiene and physical exercises for physical training. The numbers who have earned special grants in the subjects which now receive them have shown a great increase all round since 1902, they are (in thousands). Cookery, 269.1, laundry work, 107.6, combined domestic subjects, 5.5, gardening (for boys), 27.8; handicraft (other than light woodwork), 180.1.

This great increase in the numbers has been due to the interest and liberality shown by local committees in the provision of facilities for this kind of instruction, which obviously cannot be undertaken by the teacher of his own initiative. The awakening of municipalities and county councils to the educational value of manual work has been attended with the happiest results. If we add to the numbers of elementary day scholars attending such centres, the total population of the day industrial schools

and schools for defective children, we can faintly realize the enormous addition that is being made year by year to the interest and happiness of those children who most easily learn by doing, and also of those unfortunates who only get a glimmering of an ordered universe through the most concrete forms of activity.

### Summary and Conclusion

In the first half of the century the subjects of instruction consisted almost wholly of reading, writing, and arithmetic, taught for the most part by untrained teachers with insufficient appliances. There were, however, many well-conducted schools in which a great proportion of the subjects introduced later were already taught. The decade from 1860 saw a levelling-up of the efficiency of instruction in obligatory subjects, but an abandonment of the more liberal curriculum which had been partly introduced. From 1870-1900 the State experimented by giving financial encouragement to a great variety of subjects. The attempt to classify subjects minutely into the more or less important, and to subdivide them on the university plan, was found to be unworkable and ill-suited to the needs of immature minds; and it was replaced by a broad division into those subjects which had already been almost universally taken up under the system of special grants, and into those which had only been in demand in particular cases.

The period since 1900 has been marked on the

one hand by a great increase in the attention devoted to practical home craft and manual training, and on the other by a tendency to correlate still further such branches of instruction as geography and history, elementary science and mathematics, which already contain each one a wide selection of those specific subjects which formerly figured separately on the curriculum.

## CHAPTER VI

### THE SEPARATE SUBJECTS

#### English

The "English language" according to the Code includes practice in speaking with clear enunciation, exercises in continuous oral narration, reading for information both silently and aloud, and written composition. The natural incentive to all such exercises is in the first place the interest which the child feels in his immediate surroundings, in the next the acquired interest in the ample fund of ideas which are supplied by the lessons in history, geography, science, &c. Finally a real taste for, and enjoyment of, our national literature ought to be the outcome of periods spent in the silent reading of its masterpieces

Almost any lesson, then, may be turned into an English lesson upon occasion, and, conversely, reading, spelling, and grammar are now no longer taught as exercises in skill and apart from other interests. The "English language" has therefore replaced the first two R's of the early codes together with the formal grammar introduced in 1867.

It is not so long since a reading lesson meant simply the reading aloud of a selected chapter paragraph by paragraph. The true way of beginning

language—by talks with individual children about simple things, their homes and holidays—was much neglected in the middle of the century. Speech was laboriously acquired through the written word; as soon as the alphabet was mastered the children were set to reading aloud from carefully graduated books containing words of one, two, or three or more syllables. Inspector Alderson in 1859 reports that “the reading so taught was a mere listless inaudible mumbling”. The reading was worse taught than the writing, which was by most inspectors judged to be fair enough. The Code of 1862 appears to have effected some improvement. In that year the same inspector finds it possible to say that “the top class may read in a manner which is fluent but inexpressive”. This apparent improvement was partly due to the narrow requirements of the Code. The test was confined to certain reading-books prescribed for each standard. The whole length of the reading-book for the year in lower standards need not amount to more than fifty pages. Under these circumstances it is not to be wondered at that the children were letter perfect. Matthew Arnold makes some vigorous comments on this practice in 1869: “A book is selected at the beginning of the year for the children of a certain standard; all the year the children read this book over and over again and no other. . . . Suppose the inspector were to produce another book from his pocket, and to refuse grants for all the children who could not read fluently from it. The managers and teacher would appeal to the Code, which says

that the scholar shall be required to read 'a paragraph from a reading-book used in the school'. . . . The circle of the children's reading has thus been narrowed and impoverished all the year for the sake of a result at the end of it, and the result is an illusion." In 1893 the amount of reading was increased; three reading-books had to be provided for each standard above the second; and in Standards VI and VII the children were expected to read passages from Shakespeare or other standard author or English history, and in Standard VII Milton was added. The principle, however, of learning from practised passages remained much the same until the abolition of examinations for elementary subjects in 1895. The pupil teachers were likewise made to pass through a series of reading tests ranging from the "third reading-book at their first test, through poetry and blank verse at their second, and culminating in Blackstone at their fifth" (1862 Report).

The choice of subject-matter for children's reading-books has been governed at one time by literary, at another by scientific, preferences. Before 1860 the literary books predominated. Inspector Woodford in 1862 states that the children read collections consisting of interesting extracts from history, biography, oratory, and dialogue, and that the teachers cultivated elocution as a distinguishing branch of their profession. Later on, however, there arose a demand for collections of useful knowledge, for it was thought that this might well be imparted together with facility in reading. The

loading of the reading-books had begun by 1859. In that year Inspector Brookfield remarked upon the exceeding unattractiveness, to pupils of eleven and twelve, of a technical synopsis of the three kingdoms of nature, a skeleton of descriptive geography, and a few irreproachable but not very lively extracts from Cowper and James Montgomery. At a time when the elementary subjects (so called) were the only ones recognized by the Code, it was perhaps necessary to make the reading-books convey much information.

The introduction of special subjects should, however, have done away with this necessity, yet there was a widespread impression as late as 1880 that all subjects could suitably be taught in this way, for a clause was inserted in the Code of that year defining class subjects as "any others which can reasonably be accepted as special branches of elementary instruction and properly treated in reading-books". The didactic reading-book abounded in such sentences as: "The slope of a desk is oblique. The corners of the door are angles." At this time another type of book had appeared, which, according to Matthew Arnold, even went too far in the effort to avoid dryness and pedantry, and to be natural and interesting. "They contain", he says, "too many words meant to imitate the noises of animals, and too much of that part of human utterance which may be called interjectional." The lack of taste and judgment displayed in the selection of extracts was truly remarkable. The following typical passage is

quoted in Matthew Arnold's reports. The poem was entitled *My Native Land*:

"She is a rich and rare land,  
Oh! she is a fresh and fair land,  
She is a dear and rare land,  
This native land of mine";

and so on.

Matthew Arnold was impelled to make comparisons with the corresponding reading- and other school-books used in Germany.

"Nothing is more remarkable in the school administration of Germany than the care with which every branch is confided to experts, and experts of recognized expertness. The control of schoolbooks and school examinations in literature is there strictly given to persons of proved qualifications in letters; the control of schoolbooks and school examinations in the mathematical and natural sciences to persons of proved qualifications in those sciences, and so on. It would surely be well if we followed this example instead of either exercising this control with imperfect instruments or abandoning it altogether, and suffering private speculation to have unchecked play."

Matthew Arnold also did much to counteract the idea that children cannot in general understand the best literature well enough to derive any benefit from it.

The present practice is to choose such matter as shall be of sufficient interest to arrest and keep attention, shall be written in good style, and not be so difficult as to require much explanation.



According to the *Suggestions to Teachers* suitable extracts are "stories and passages of literary value only, descriptive, narrative, and declamatory". Information may, of course, still be given in reading-books such as the geography readers of which such a wide choice is now available, but the study of these does not constitute the English lesson proper.

### Arithmetic

Arithmetic as formerly taught consisted of a collection of rules, and was concerned with words and figures rather than things. The connection between objects, such as the balls of the counting-frame, and abstract numbers had been made in the infant classes, but in the upper classes the figures had become detached from common sense and reality. Symbolical operations are powerful aids to computation and are economical of time and space, especially if the most approved algorisms or methods of working are taught from the first. Having learnt the rule by the quickest method (i.e. by rote), the child will have no difficulty in applying it to the needs of life. Such was the theory. The result obtained in many cases has been well expressed by Professor Adamson: "The pupil is ready to add, subtract, multiply, or divide with distressing impartiality and a fine disregard of the conditions of the problem". It has been found that even the ease in casting accounts which was formerly the sole aim of elementary arithmetic could not be in all cases ensured by teaching a series of mechanical rules and working through

examples carefully chosen to illustrate each. Even the simplest sum of a practical nature presented great difficulties to children so trained. Inspector Brookfield in his report of 1859 says that the question "What is the cost of 5 dozen eggs at 5 for 2d.?" was answered by only 256 out of 1344 upper-class pupils.

The application of examination tests in 1862 revealed great deficiencies in arithmetical ability, although the tests only aimed at ascertaining the power of working by rule and accuracy of ciphering. The syllabus at that date included the simple rules up to Standard III, compound rules (money) in IV, weights and measures in V, and practice, "bills of parcels", in VI. By 1871 proportion, vulgar and decimal fractions were added in VI, and the requirements were raised throughout the school. Attention was, however, still paid rather to the form than to the meaning of operations. For example, proportion was taught by the "rule of three" method, which is well known to obscure rather than facilitate comprehension. Much the same might be said of practice as taught at that time. In 1880-1 an inspector wrote: "Arithmetic remains very much where it was. Success under this head seldom means more than a good mechanical efficiency." The teaching of the four rules separately, and the immediate application of each to large numbers, produced a showy but useless kind of dexterity. Thus it is stated in another report of the Committee of Council: "I came across children who can add and subtract intricate vulgar

fractions, but are incapable of writing down from dictation a sum in simple addition which a class of well-taught infants would do easily".

In 1894 an alternative scheme was issued, which was drawn up on the principle that "the true progression in arithmetic is not to be found in advancing from addition and subtraction to multiplication and division with the large numbers often given in sums, but in graduated exercises beginning with small numbers and exhausting all their combinations". Thus the relation between the four rules would be visualized in Standards I and II, and multiplication, e.g., would be recognized as continued addition from the first. About this time also, attention began to be given to the intelligent statement and working of problems.

The appearance of mensuration, of rectangles (in Standard V), and of solids (VI) among the requirements of the Code represents an official recognition of practical arithmetic. In individual schools, weighing and measuring had long formed a part of the course. Canon Warburton in his report of 1880 mentions that at a country school at King's Somborne, near Winchester, the walls were covered with diagrams of lengths and areas to illustrate the "compound rules". Here also the "money rules" were taught with heaps of brown, white, and yellow counters, and a set of measures, such as pint pots, &c., were kept in the school. At present a school equipment is scarcely considered complete without English and metric graduated straight edges, set squares, protractors, compasses, models of geometri-

cal solids, and perhaps simple surveying instruments. The gain in vividness and in the power of dealing with the situations of life has been great. Children can now, in many cases, work with ease problems at which their masters would have shied in 1850. Fractions which were too difficult for the methods of 1860 may now be introduced by means of subdivided slips of paper, &c., in the third year. The manipulation of numbers also became more interesting, as they are connected with the measuring exercises of physics and geography. Arithmetic no longer appears as a sequence of abstract rules framed with no object except the ultimate working of "bills of parcels". At the same time there need be no fear that the constant appeal to concrete illustrations and the intelligent development of rules will make the children any less efficient in dealing with matters commercial. The manipulator of large numbers and lightning calculator is born not made. No amount of drill in long and laborious sums can produce one with certainty, although, of course, a perfect accuracy in ordinary calculations can be and should be insisted on in all cases. The mere calculator is being replaced by logarithms, the calculating machine, the cash register. The intelligent mathematician and solver of problems on the other hand is both born and made. There are few children who cannot be made sooner or later to see the logic of the simpler numerical operations. A boy who has acquired, by geometrical exercises with similar triangles, by graphical work, or by the statement of problems, a sound idea of proportion,

will have no difficulty in seeing that discount, profit and loss, simple interest, stock and share transactions, are all really examples of the same principle—that problems in these are not to be worked by so many separate rules, but by the well-known relations of direct proportionality. The mere grinding out of percentages may be done by a machine, but the work of an accountant, banker, &c., requires a human intelligence trained in problems.

### Geography

Geography has been popular ever since the time of its first introduction as a class subject in 1875, and by 1890 was taught in about 80 per cent of the school departments which adopted class subjects. Physical geography was introduced separately and somewhat later.

Geography proper consisted largely of names and definitions, lists of rivers, the capitals of countries, &c. Under the head of physical geography were included the elements of physical geology, meteorology, and astronomy. The two branches are now more closely connected. The reasons which govern human migrations, the foundation of towns, the distribution of the world's wheat belts (to take a few examples) are now deduced by experienced teachers from fundamental geographical laws, which may in their turn be made clear by simple physical experiments. Nor is the reciprocal influence omitted which plant and animal life exerts upon such physical changes as the erosion of the land.

Commercial geography, which is made a prominent feature in the schools of the large seaports, is now enlivened by the use of the statistical diagram, and by the exhibition of specimens of raw materials and manufactured products. Political geography gains interest by its close connection with history, and especially with that local history which is associated with a castle, a battlefield, or some incident in the life of a historical personage.

On the practical side, geography gives occasion for simple surveying, and has close connections with nature study and elementary science. Like almost every school subject, it requires the aid of drawing, handicraft, modelling, and mathematics

### History

History was not commonly taught in the schools even as late as 1890. The delay in its introduction was partly accounted for by a regulation which restricted it as a class subject to the standards above IV. It was included among the essential subjects which should be taught as a rule in every school by the recommendations of Lord Cross's Commission in 1888. The history lesson, from being little more than an exercise in reading passages from a textbook, with a few questions and notes thrown in, has become one of the most interesting of the school day. Less attention is paid now to the personal affairs of monarchs, to wars and political intrigues, and far more to the actual conditions under which people lived in different

centuries. The dramatization of striking scenes, using the words, say, of one of Shakespeare's historical plays, is frequently carried out with good effect. The information of textbooks is amplified from original sources, of which reprints are now so easily obtained, and also from the best fiction, such as *Westward Ho!* or poetry such as Macaulay's *Armada*.

It is generally agreed that British history should be the central feature of the course, but the teacher has great freedom in his choice of treatment. The former chronological system still has its advantages to set against those of the more recent concentric system. When the history was taken chronologically, century by century, up the school, the earlier lessons would consist mainly of anecdotes such as that of Gregory and the English slave boys, or of picturesque details, e.g. of the life of a Saxon thane. Only in the higher standards would attempts be made to trace the causes of economic and political changes. Since the earlier history does consist to a larger extent of picturesque tradition, there was indeed a certain fitness in the order adopted. It was, however, not suitable that a child who left before the sixth or seventh standard should be quite ignorant of the later periods. By the concentric system this fault was corrected. Each class ranged over the whole of the history, in greater and greater detail each successive year. It was thought, however, that the impression so given was often vague and confused. In many schools an attempt is made to combine the advantages of both

systems by studying the successive periods in more detail in the middle classes, and then finishing in the highest class by a more rapid survey from some particular point of view, such as the growth of our sea power and the expansion of the Empire.

### Elementary Science

When "the natural sciences" were given a place on the curriculum as an optional subject in 1871, a note was added which suggested future developments. "It is not improbable that new plans may be proposed by which children may be enabled to gain scientific ideas from the study of natural objects and from careful direction of their power of observation." Another note to the Code of 1875 insisted upon the importance of practical work at first hand by the children as distinguished from the mere memorizing of facts and verbal descriptions. Elementary science was made a class subject in 1882, and was intended to form a progressive course leading from a study of common objects in Standards I-III to the principles underlying mechanical appliances and the chief industries in Standard V, and a fuller study of the same in Standards VI and VII. After the abolition in 1892 of the rule requiring English to be the first choice of class subjects, many schools began to include science in the ordinary curriculum. In spite, however, of the relatively great increase in the number of these schools (from 32 in 1890 to 1712 in 1895) they still formed less than 8 per



cent of the whole. In 1895 object lessons were made compulsory in the lower standards.

In actual practice, lessons of the "object" kind appear to have been the rule even in the higher standards. The sort of information given may be exemplified by a quotation from Matthew Arnold's reports: "An apple has a stalk, peel, pulp, core, pips, and juice; it is odorous and opaque, and is used for making a pleasant drink called cider". This statement, however trite it may seem, is accepted in all seriousness by children of a certain age, provided that the apple is actually produced, and is not replaced, as it was too often, by that poor substitute, a drawing on the board.

Even the best type of object lesson, however, can hardly be expected to fulfil the purposes for which science was introduced. The object or observation lesson has now been given a meaning distinct from that of the lesson in elementary science. The aim of the former is "to teach the scholars to observe, compare, and contrast", and for its purposes "all data given by the observation of an object are of like significance"; whereas in the science lesson "some particular aspect or activity of an object will claim attention". Thus at one time attention may be constituted on the mode of dispersal of seeds, at another on their germination. So, in elementary physical science the air may be studied either from the point of view of its circulation or of its chemical composition. Various causes have hindered the opening of this world of interest to the child in the elementary

school, and still stand in the way of its adequate exploration.

The first of these obstacles was the general indifference of the public to the value of that scientific training of which they themselves had had no personal experience, the second, the want of facilities for teaching and the training of teachers, and the third, an utter misconception as to the kind of science required.

By the middle of the century, popular indifference to science was fast dissolving, since the importance of its applications to the material progress of the nations was patent to everyone. Perhaps at no other period of the world's history have so many discoveries and inventions of the first magnitude been made as in that which included the laying of the first Atlantic telegraph, the publication of the *Origin of Species*, the discovery of the first synthetic coal-tar dye, &c. The value of the principles of these discoveries both as an element of ordinary culture and as an assistance to further progress was urged by Huxley (*The Educational Value of the Natural History Sciences*, 1854), Herbert Spencer (*What Knowledge is of Most Worth*, 1859), Tyndall (*The Importance of the Study of Physics as a Branch of Education*, 1854), J. S. Mill (*Inaugural Address to St. Andrew's University*, 1867), Bain (*Education as a Science*, 1878). The opinions of these thinkers were officially recognized by several public commissions. A Select Committee of the House of Commons on Scientific Instruction for the Industrial Classes (1868) emphasized the importance to

all of instruction in drawing, physical geography, and natural phenomena. During the period 1870-5 the whole of the scientific instruction of the nation was investigated by a Royal Commission and found to be even more deficient in the grammar and public, than in the elementary schools.

### Science and Art Department

Since its foundation in 1853 the Science and Art Department had been carrying on its system of awarding grants on the results of examinations for pupils (1861), and of encouraging teachers to pass a qualifying examination (1859, discontinued 1867). It had in this way undoubtedly done much to set a definite standard of scientific knowledge before elementary school teachers, and its work was approved by Huxley in the following terms: "A great step in this direction has already been taken by the establishment of science classes under the Department of Science and Art—a measure which came into existence unnoticed, but which will, I believe, turn out to be of more importance to the welfare of the people than many political changes over which the noise of battle has rent the air. Under the regulations to which I refer, a schoolmaster can set up a class in one or more branches of science, his pupils will be examined, and the State will pay him at a certain rate for all who succeed in passing." It must, however, be added that these examinations, conducted as they were on the "external" plan, were inevitably

of a formal and "bookish" nature and dissociated from experimental work. There were six subjects in 1859:—

1. Practical plane and solid geometry, mechanical and machine drawing.
2. Mechanical physics
3. Experimental physics
4. Chemistry.
5. Geology and mineralogy.
6. Natural history (including zoology and botany).

Teachers who had passed in one or more of these subjects would have received a training excellent indeed as a discipline in hard thought, but yet not sufficiently comprehensive and practical for the needs of the school. As Huxley has said: "To be a good elementary teacher, to teach the elements of any subject requires most careful consideration if you are a master of the subject; and if you are not a master of it, it is needful you should familiarize yourself with so much as you are called upon to teach—soak yourself in it, so to speak—until you know it as part of your daily life and daily knowledge, and then you will be able to teach anybody" And again. "If he does [really and practically know his subject] he will be able to speak of it in easy language and with the completeness of conviction with which he talks of any ordinary everyday matter. If he does not, he will be afraid to wander beyond the limits of the technical phraseology which he has got up; and a dead dogmatism, which oppresses or raises opposition,

will take the place of the lively confidence born of personal conviction which cheers and encourages the eminently sympathetic mind of childhood."

Before 1870 the opportunities which a teacher had of getting to know a branch of science "really and practically" were few and far between. The Government School of Mines and of Science applied to the Arts had been opened in 1857, and summer courses for teachers have been held there since 1868. It was reorganized in 1881, and in 1890 it was renamed the Royal College of Science. The university science courses available before 1870 included Owens College, Manchester, opened in 1851; the Natural Science Tripos at Cambridge, which dates from the same year, and the Honours School of Natural Science at Oxford, instituted in 1853. External London degrees established in 1858 have been of the greatest advantage to teachers who were far from any of the centres of higher education. The Faculty of Science at London University was opened in 1860.

After 1870, university colleges were founded in rapid succession at Newcastle-upon-Tyne, Leeds, Bristol, Sheffield, Birmingham, and Liverpool. There are now few centres of population in which a good laboratory training cannot be obtained.

The provision of higher scientific instruction, while it undoubtedly gave a greater reality to knowledge, yet hardly diminished the tendency to lecture to children on highly specialized branches of science. The reverse tendency has now found

expression in the correlation of the biological and earth sciences under the titles of nature study and geography, and the physical sciences under "elementary physical science". The desirability of such correlation had already been recognized by Matthew Arnold. In his report of 1878 he says: "It is with children under thirteen that we have to deal; and with children of whom in general the mental condition is such as has been above indicated. Evidently such children are not subjects for what is commonly meant by mathematics, German, mechanics, animal physiology, physical geography, and botany." Some of these subjects should be replaced by *natur-kunde* or nature knowledge. "It should aim at systematizing for the use of our schools a body of simple instruction in the facts and laws of nature so as to omit nothing which is requisite and to give all in right proportion. Of course, the best agency for effecting this would be a gifted teacher; but as gifted teachers are rare, what we have most to wish for is a good textbook. Such a textbook does not at present, so far as I know, exist. For school children under thirteen, as much of mechanics, animal physiology, physical geography, and botany as they need may surely be comprised in their class lessons in elementary *natur-kunde*."

Later, in 1884, the specialized instruction in chemistry encouraged by the Science and Art Department is thus alluded to by Professor Armstrong: "There is thus practically no distinction to be drawn between the knowledge required of

students under the Science and Art Department and those who are making the study of chemistry the business of their lives. But surely it is not the function of the Science and Art Department to train up chemists, and I am satisfied that it is neither their desire nor their intention to do so; their object undoubtedly is to encourage the teaching of chemistry as a means of cultivating certain faculties and in order that the fundamental laws of chemistry may be understood and the commoner applications realized."

Thus specialist teaching was often given in specialist laboratories, which, yet, with all their equipment, in too many cases were the scenes of an unintelligent drill. "Science" thus acquired a bad name, and those who had never favoured the innovation much might justly question the utility of providing expensive laboratories in order to teach facts which seemed to have little relation to the needs of life, and less educational value.

Armstrong, in a series of articles and addresses (collected as *The Teaching of Scientific Method*), has called attention to the utter misconception upon which this criticism of science teaching is founded. "First," he says, "as to appliances. There is a very wrong idea abroad that very special and expensive accommodation is required. This is not the case. There must, however, be space in which work can be done; there must be a workshop—don't call it a laboratory, this should be fitted as a workshop simply . . . Benches of the kitchen-table type, which need not even be

fixed, suffice for nearly all purposes. . . . As to apparatus it should be gradually provided to meet requirements as they arise; every effort should be made to utilize ordinary articles—medicine and pickle bottles, jam-pots, saucepans, &c.—and to construct apparatus in the workroom. . . . But there are certain articles that must be provided, notably, centimetre and foot rules, drawing boards, T and set squares and balances.”

It is to be noticed that the appliances recommended are of the most varied description. The reason of this is that wood, glass, and metal work may all have to be undertaken by the young investigator. Formerly it was considered that glass tubes, flasks, &c., which are certainly necessary for practical physics and chemistry, were also sufficient. Any extra apparatus provided was distinguished by elaborate brass and polished wood mountings, and was made to sell rather than to use. There were no facilities, however, for repairing such apparatus, or for making a substitute which would be rougher but perhaps more serviceable. If the manual-training centre is close at hand it is true that much use may be made of it, and the expense of providing a lathe or other large appliances may thus be saved. Yet it is equally true that the science workshop ought itself to be supplied with such tools and materials—a vice, chisels, files, wire, emery paper—as are continually required. It must ever be borne in mind that the aim of all school investigation is not to teach a technical employment or even the underlying principles of one, but is, briefly, to develop



versatility, resourcefulness in new situations, and perhaps the power of discovery. A good deal of time should be spent even in the workshop in thought and planning, and the classroom should also be freely used for discussing difficulties, or in clearly formulating general laws which were already dimly apprehended from concrete experience.

Twenty years ago such an ideal would have been impossible, but the key to the whole situation is the teacher, and the addition of an extra year to his university training has considerably extended the range of possibilities. It is not a part of the scheme of the present work to forecast the modifications required in the training of science teachers before they will be able to take full advantage of a school workshop such as has been described. One obvious requirement, however, cannot be too much emphasized; it is that the teacher must have proved that he can himself carry out a research. It is quite clear that he cannot teach the method of discovery if he himself has had no experience of it. Once this power and mental outlook are assured the rest will come of itself. There is at present a considerable choice of courses of investigation, beginning with the almost classical "rusting of iron", which may be judiciously employed by such a teacher. Having once made sure of their man, the local authorities might safely install him in the large room with the rough tables, &c., give him a moderate petty-cash allowance which he may spend when and where he pleases, with the sole restriction that the receipted bills are handed in

at regular intervals. The ideal man for the purpose is one who has been trained to look broadly at the philosophical aspects of science, and who has done a little independent work in several branches of science under investigators of note. He must not be a specialist, but even a specialist is better for this work than a man who has specialized only in talking about what he does not understand.

That the elementary schools require history, literature, and art, which are good of their kinds, is admitted on all hands, that they require real science is also agreed among all those who know what science means. A young man who is not awake to the scientific interest of his surroundings may be said to have only partly entered into the heritage of civilization. Mach put this view more strongly when he said that without at least an elementary mathematical or scientific education a man remains a stranger in the civilization of the time that bears him. If a rational acquaintance with the main principles and facts upon which material civilization is founded is important, no less so is the manner in which such scientific culture has been acquired.

Sir William Ramsay, in speaking of the education of a chemist, said that "it must be conceived in the sense that it consists in an effort to produce an attitude of mind rather than to instil definite knowledge. Of course the latter must not be neglected: the definite knowledge may be likened to bricks which the architect has at his disposal in erecting a beautiful building; he knows their shapes, their capacity for resisting stresses, and, in short, what

can be done with them." In the university the student ought to be to a great extent his own architect, in the elementary school the teacher must suggest the main lines of the building and see that bricks are provided. But the great aim is in both cases to put the pupils as soon as may be into the position of independent enquirers. The spirit of conscientious and honest investigation forms no inconsiderable part of morality, and like other ideals of life it can best be communicated by good leadership, and by the infectious influence of work carried out in common upon some suitable material.

### Drawing

The account already given of the Department of Practical Art shows that drawing, like elementary science, was originally introduced with a view to the improvement of our manufactures. The removal of the Department of Science and Art from the control of the Board of Trade to that of the newly formed Education Department in 1856 did not alter the nature of the instruction given. Drawing remained synonymous with designing until quite recently. It is not so long since the output of the drawing classes consisted mainly of formal leaf and flower designs and other patterns. The work was encouraged by prizes and grants given to the pupils and to the masters. The training of teachers was carried on at the National Training School of Art (in 1896 Royal College of Art) The teachers were assisted by scholarships and free studentships.

Drawing in the schools was under the control of the Science and Art Department until 1899 (except during the period 1885-7). "Linear drawing" was recommended as an essential subject by the Royal Commission of 1888, and made compulsory for boys in 1890. In 1901 drawing for girls was included in the list of subjects taken "as a rule".

Drawing is now recognized as an essential part of education, as one of the most important means of training the hand and eye, the powers of observation, and the æsthetic sense. To quote from the *Suggestions*: "The aims of the teacher should be entirely educational, the dominant aim being that of enabling the scholar to see correctly and to represent accurately any given object". On the principle that "drawing is as natural to the child as speaking and writing", he is set to copy solid objects at an early age. The use of colours, generally water colours, is also introduced early (in the first or second standards sometimes). The teacher is expected to show the children how to use these and other materials, how to hold their pencils, &c., but by no means to show them what they should see. Any defects in their drawings they are to be led, if possible, to discover for themselves. The drawing lesson is often varied by memory drawing, the illustration of stories, &c. There is little copying from the flat in some schools. Methods vary, of course, from teacher to teacher—some prefer to have the outlines put in first, others to have the large areas of light and shade worked out from their centres. It is difficult to say whether

the "outline" or the "mass" method is the more natural to children. At the age of entry into the elementary schools they usually as a matter of fact draw in outline, and in many infant schools practice is given both in outline and mass. The instruction in brushwork and in "free-arm" drawing on large boards is useful, if for no other reason, because it counteracts the cramped style which most children so easily acquire. In the upper classes the freedom of manipulation and accuracy of eye so gained is turned to practical account. The science lessons are illustrated by diagrams of apparatus and pictures of flowers, and the thumb-nail sketches of the manual-training class gain in intelligibility.

Thus the elementary school, without pretending to teach machine drawing or the elements of design, has yet effectually laid foundations of geometrical knowledge, of skill with pencil and brush and taste in their use, upon which the more technical accomplishments can afterwards be built in the higher elementary or technical school. Skill in the designing studio or the engineer's drawing office is not lost in the end by the treatment of drawing at the elementary school as a liberal art.

### Music

The reading of simple music (plain-song) or the writing of musical scores (prick-song) appears to have formed an important part of elementary education before the Reformation. As already stated, the poor were then chiefly educated in cathedral,

diocesan, or chantry schools so far as they were educated at all. The following quotations, illustrating the importance of music in that era, are taken from *English Grammar Schools to 1660* by Professor Foster Watson. "The qualifications of a chantry priest were explicitly stated to be grammar and music. For example, at Giggleswick and at Tutthill in Yorks the rood chantry priest was required to be sufficiently seen in plain-song and grammar. . . . The most important type of elementary school before the Reformation was neither the A B C school, the writing school, nor even the reading school, but the song school." The musical teaching in these schools seems to have been thorough, as it was principally designed to train good choristers. Plain-song was taught, mainly by heart, so that the child should be able to join in the responses of the "ordinary of the Mass"—the *kyrie*, *gloria*, &c. Some pupils would go on to the "proper of the Mass", would learn four-part music and take part in hymnals and antiphons. The young choristers could turn their musical knowledge to advantage in later life—they not only entered the minor orders of the clergy, but also became actors in miracle plays, minstrels, pipers, &c.

The school teaching of music declined after the dissolution of the chantries in the fifteenth century. The training of choristers continued in the cathedral schools, but music appears to have been crowded out by classical studies in the grammar, and by arithmetic in the elementary schools. One result

of the increasing separation between the church and the elementary schools was that music was seldom taught in the latter during the first part of the nineteenth century. Even at this time, however, some slight provision was made for training teachers in the theory and practice of singing from notes. In 1872-4 singing in the schools was encouraged by the device of reducing the grant by 1s. per scholar unless vocal music were taught. In 1874 this negative encouragement was changed into the positive form—1s. was added to the grant if music were taught. The inspector could call for a song chosen from among five which had been prepared. The tradition that this was the limit of the school repertoire remained for long; so that the Board in their *Suggestions* for 1905 have definitely stated that this was intended to be the minimum number only, and that if the music is good, the more they learn the better. A useful list of suitable songs and rounds—English, Scottish, and Irish—is added, also a complete scheme of training in sol-fa and staff notation. Singing by note was encouraged in 1882 by reducing the grant from 1s. to 6d. if the training were only by ear. By 1902 the former method was employed in 92.7 per cent of the 31,367 school departments which taught singing. The inclusion of music, preferably about ten to fifteen minutes each day, as a regular part of the school programme (since 1900) is easily justified. Physically its value is that it introduces the elements of enjoyment into breathing exercises. The voices of the children also are trained and preserved. In some centres school

concerts are given at intervals, and afford the children an opportunity of learning to appreciate the best classical music.

### Domestic Subjects

The branches of instruction for which special grants are paid by the Board of Education are cookery, laundry work, housewifery, dairy work, handicraft (including light woodwork), and gardening. The intention of the Board in encouraging these subjects is not, of course, to train professional cooks, laundry workers, gardeners, &c. The utility of the skill and knowledge acquired is indeed such that, to take one example, in some districts boys who have been through a course of handicraft are in great demand in the local workshops. But the skill acquired is really and primarily intended to be directed to the management of the home rather than the earning of wages. The object of "combined domestic subjects", which must include cookery, laundry work, and practical housewifery, is thus stated in the *Suggestions to Teachers*: "Though the classes should never resolve themselves into a training for domestic service or any other special employment, they ought to be designed to fit girls by repeated practice to undertake when they leave school the various household duties which fall more or less to all women". Although the home crafts are taught in the first place on account of their utility, yet they have a distinct educative effect of their own. The problems



of the dairy, kitchen, &c., belong fundamentally of course to physics, chemistry, and biology, they may often be solved by methods which are those of science in general but do not necessarily employ the complete theory or terminology of the formal subdivisions of science.

A little time "wasted" wisely in the middle standards in dealing, under direction, with the unexpected behaviour of water, sugar, fat, cleaning materials, &c., under various conditions, would probably add a little meaning to the chaos of cookery and household recipes, and would at any rate form the desirable habit of experimenting under controlled conditions. Thus while the main object of doing things effectively without mess and waste, and of following directions exactly, is steadily kept in view, there should yet be mixed up with this instruction a good deal of informal experimentation.

Domestic economy appeared as a specific subject in 1872, attendance at cookery lessons was recognized by the Code of 1875, and a grant was made payable for cookery in 1882. The number of girls for whom grants were paid in respect of these subjects has increased rapidly since 1882.

### Handicraft

A certain amount of manual training for boys had already been introduced into some Manchester and Sheffield schools in 1884 with the most favourable results. It was recognized as counting for

attendance by the Code of 1890, and from 1891 to 1898 received grants from the Science and Art Department as now from the Board. Between 1891 and 1899 the number of schools which offered manual instruction increased tenfold, and between 1899 and 1910 nearly threefold. The instructors were at first largely selected from craftsmen rather than professed teachers, and the classes were held in manual instruction centres which were separated and sometimes far removed from the schools they had to serve. An erroneous impression was thereby given that handicraft was a technical subject apart from the ordinary school work. According to the Board's definition of 1897, however, this work is not intended to serve as an initiation into any special handicraft, but is rather to be regarded as a disciplinary exercise destined to train hand and eye to accuracy and to a due appreciation of form. At present, handwork is claiming a more important place on the school curriculum, not merely as a preparation for technical pursuits, or as subsidiary to other subjects, but also as an indispensable experience for all children. A recent report of the London County Council sums up this opinion as follows: "To do things, to make things, to deal with material, to adapt means to ends, are characteristic of the human race, and we feel we cannot be wrong in recommending more doing, more actual handling, more investigation of the properties of various types of material, more attempts to construct and design in our schools as part of the scheme for training the young".

Much pioneer work is being done at present both by individual teachers and by associations, such as the Educational Handwork Association, which will have the effect of removing the initial difficulties of finding suitable cheap materials and exercises adapted for every age. The gifts of Froebel and the apparatus of Montessori, or their like, are recognized as necessary for infants, we cannot now follow the advice of Locke and withhold from them all playthings, except a smooth pebble, a piece of paper, &c., until they arrive at an age when they can make their own toys. But in the case of older children we must admit that there is much practical wisdom in his advice: "Indeed when they begin to set themselves to work about any of their inventions they should be taught and assisted, but should have nothing whilst they sit lazily still expecting to be furnished from other hands without employing their own".

It is agreed that boys may well get a sounder acquaintance with geometrical and mechanical principles by making models of geometrical solids, railway signals, &c., than they ever would by handling the ready-made articles. The effective correlation of handwork with other school subjects may be illustrated by examples taken at random from an exhibition and from a list published by the Liverpool Education Committee. History lessons are enlivened by cardboard models of typical crowns, shields (baronial, Roman, Saxon, Danish), sedan chairs, Saxon doorway (in wood). The simple instruments used in practical geography—

sight rule, mariner's compass, and even a theodolite —are often successfully made by the boys. Human geography is illustrated by large models, generally co-operative, such as those of a Japanese tea-house, Alpine scenes (with all the snow sports in active progress), villages of Japan, Siberia, and Hindustan.

Light wood, of about the thickness used for matchboxes, affords a cheap and effective medium for the younger boys. The whole furniture of a doll's house can be quickly constructed in this material with the aid of a little glue. It also lends itself to the more ambitious construction which is the combined work of a group. A good example is the model of a Canadian stockade settlement which was recently exhibited in Liverpool. The makers of this must have been well satisfied that they had contributed to the common good, since it had been used to illustrate lessons in reading, composition, arithmetic, geography, history, and drawing.

Ingenuity in the making of mechanical toys easily leads to the design of apparatus which will illustrate some scientific principle. Thus a flat spring is so mounted as to flip a card from under a coin, and in so doing to demonstrate the principle of inertia. Other examples are a Newton's colour disk which can be rotated so as to show the blending of colours into grey, or a multiplying lever to show the expansion of a metal when heated.

It will be noticed that nearly all the motives

which urge the boys to these constructions are of a social nature—they wish either to help the teacher in the science lesson, or to amuse the babies, or to make something, such as a soldering-bit or a white-metal calendar stand, which shall be useful in daily life. The possibilities of manual work have not yet been completely utilized, partly on account of the lack of qualified teachers. The Board of Examinations for Educational Handwork since 1898 has attempted to supply this want by standardizing the examinations and issuing certificates for the theory and practice of kindergarten work, clay modelling, cardboard work, &c., and school gardening. The idea that an elementary school teacher should in all cases be somewhat of a craftsman is expressed in the following passage from Professor Findlay's book on *The School in the Home University Series*: " . . . young children are predominantly concerned in practical output with material—they are craftsmen; whereas the youth has advanced to a larger vision in his social and moral interests. Hence, if distinctions are to be made between primary and secondary teachers we should say that the ideal primary teacher is one who, above all, is an artist and craftsman, while the ideal secondary teacher is more in accord with the scholarly type which has been the tradition for all grades in the profession."

### Health and Physical Training

The importance of a good foundation of health has been insisted upon in most of the classics of education. Locke, for example, devotes the first part of his *Thoughts* to pointing out the prevalent mistakes in the rearing of children.

These mistakes would appear to have been principally on the side of over-indulgence. To counteract this, Locke advocated a hardening process carried to the point of deliberate infliction of pain and exposure to the discomfort of cold and wet. This discipline was desirable quite as much because it formed the character as because it hardened the body. Rousseau looked at the matter from a somewhat different point of view. Indulgence was not in itself either morally wrong or physically harmful provided it was procured by vigorous efforts. Physical courage and endurance are necessary in the original conflict with nature, therefore in order that he may grow into a natural man the boy must lose his way in woods, suffer hunger and thirst, strike out boldly at things which molest him in the dark, &c. He was at all costs to be prevented from feeling that he belonged to a complex civilization which offered indulgences without effort. The difference, then, between Locke's and Rousseau's ideas of physical education is largely due to the fact that the latter did not, while the former did, accept the civilization which offers comfort as a free gift to the wealthy. Rousseau would evade the possibility of indulgence by an artificial

change in the environment, while Locke would overcome the temptation by a reasoned and voluntary abstinence.

To these over-emphatic warnings against "cockering and tenderness" we may perhaps partly attribute the rigour of some early Victorian nurseries and schools—the bareness of arms and necks and the restricted diet of children. That this treatment had a stunting rather than a bracing effect is pointed out by Herbert Spencer, who says that among the educated classes who chiefly display this reaction towards abstemiousness, there may be seen a decided leaning to the underfeeding rather than the overfeeding of children. And again, "The common notion about 'hardening' is a grievous delusion. Not a few children are hardened out of the world, and those who survive permanently suffer either in growth or constitution." At a time when such misconceptions prevailed regarding the physical necessities of well-to-do children, the mismanagement of the poorer children both in and out of school naturally excited little attention. Ever-increasing numbers were being drawn from the healthy, if dirty, vagabond life of the streets to the less natural life of the classroom. Thus to the evils of the insanitary condition of the cities in general were added those arising from sedentary occupations pursued in ill-ventilated rooms. Later, with the raising of the standard of work, the intellectual strain of school work also began to make itself felt.

Precautions in the interests of the public health

were not taken until the statistics of mortality and illness, which had been kept since 1834, had shown how great was the loss in life and power of work due to insanitary conditions. The principle of State compulsion in these matters was first established by the Public Health Act of 1848, which set up a central authority, the General Board of Health. Successive Acts between 1858 and 1875 transferred this responsibility to local sanitary authorities. Within the schools themselves the number of cubic feet of space to each scholar, the efficiency of ventilation, &c, have been increased from time to time, until the best modern schools, with their separate classrooms grouped round a lofty central hall, their central heating and elaborate system of ventilation, leave little or nothing to be desired in this respect. The health and cleanliness of all children attending public elementary schools are now carefully attended to. Continuous medical inspection was provided by the Act of 1902, and further regulations have since been issued by the Board. Children who are suffering from physical malformations or who are below the average in mental capacity are removed to the special schools which the local authorities are now empowered to provide. Here they receive the special attention which at any rate mitigates their misfortune, and often enables them to lead useful and happy lives.

The special kind of physical deterioration due to the sedentary nature and intellectual strain of school life was also noticed by Herbert Spencer. "But while to all it is a familiar truth that a forced



development of intelligence in childhood entails either physical feebleness or ultimate stupidity or early death, it appears not to be perceived that throughout youth the same truth holds." The only remedy in this case is to lighten the intellectual work, since psycho-physiological researches have shown that hard exercise does not "renew the mind", as it was formerly sometimes supposed to do. The sedentary desk-work will, it is hoped by the advocates of manual training and workshop science, be replaced by the more active bench-work. Whether this change comes into effect or no, it seems clear that any evil effects of sitting at desks are at any rate minimized by the division of the school day into short periods separated by intervals for play. The addition of organized exercises probably does away with all objections to school life on this score. The kind of exercise recommended has varied considerably from time to time. In 1870 the Committee of Council, who had been in consultation with the War Office, suggested that the squad recruit or company drill of the army field exercise book was most suitable for schools. Two hours a week of this drill was prescribed in 1871. A word of caution as to the need of care in applying such training to delicate children is to be found in the report of the Royal Commission on Elementary Education (1888). Gradually Swedish exercises were introduced, and in 1895 instruction in these was made a necessary condition for the highest "discipline and organization" grant. Since 1900, "physical

exercises" has been one of the ordinary subjects of the curriculum. The Board's *Syllabuses of Physical Exercises*, first published in 1902, were expanded in the years 1904, 1905, and 1909, and now contain as well an account of the physiological effects of different movements. The Code of 1906 recognized the health-giving effects of organized games—cricket, football, and hockey—and allowed these to be played in school hours. Instruction in swimming also is now given at many schools. It is realized that the swimming competition, the football matches, and similar activities develop resource, quickness, and the spirit of comradeship far better than the most carefully planned gymnastics. The other school work has not suffered so far by the cultivation of games, in fact the Board was led to encourage them partly by evidence of an all-round improvement in these schools in which they had been adopted.

### Physiology and Hygiene

The continued health of a member of a civilized state depends not only upon the provision of wholesome surroundings, food and clothing, but also upon his personal knowledge of the laws of physical life. This fact, so obvious now, was not seen to have any bearing on the education of 1861. In his essay of that year Herbert Spencer enunciated a new principle. "That knowledge is of most worth", he considers, "which conduces to direct self-preservation. . . . Some acquaintance with the first principles of physiology and the elementary truths

of psychology, is indispensable for the right bringing up of children." The introduction of animal physiology as a specific subject in 1871 may be considered as one of the first results of the enlightenment of educational authorities. It is interesting to note that from the first an attempt was made to teach the laws of health from a scientific point of view. It is hardly a natural tendency of British education to prefer the scientific to the empirical presentation, but here again it is perhaps allowable to trace the influence of Huxley and Spencer. The former wrote in 1877: "I really see no harm which can come of giving our children a little instruction in physiology. But then, as I have said, the instruction must be based upon observation, eked out by good explanatory diagrams and models, and conveyed by a teacher whose own knowledge has been acquired by a study of the facts, and not the mere catechismal parrot-work which too often usurps the place of elementary teaching." It has been the neglect of some of these necessary conditions (indeed the fulfilment of them presents a real difficulty) which has led to the partial or complete abandonment of the scientific aspect in favour of empirical instruction in laws of health. Indeed, great discretion is necessary in deciding which parts of the subject are, and which are not, most suitably provided with "explanations". The evil effects of alcohol cannot be proved by showing that it preserves animal tissues and will therefore probably have a hardening effect on the

stomach. Animal tissues may also be preserved by salt, sugar, &c. Any intelligent boy would raise objections of this sort to such a proof, or would feel that there was something wrong. As for the majority who simply accept what they are told, it is not at all certain that they are more impressed by this circuitous proof than by the simple and really more scientific statement that alcohol is bad in general because it causes discomfort and has such and such obvious effects. There are, of course, many physiological laws, such as those of respiration, the reasons for which can be clearly explained and well illustrated by experiment.

Hygiene became a specific subject in 1894, and in that year "animal physiology" was defined as including instruction in the use of food and drinks. In 1909 the Board published a *Syllabus of Lessons on Temperance*. The publication of this and many admirable textbooks, as well as the establishment of courses in scientific physiology for teachers, has already gone far to make the lesson in hygiene an exercise in correct thinking as well as an effective guide to living.

## CHAPTER VII

### THE TREND OF SOCIOLOGICAL THEORY AND ITS INFLUENCE UPON EDUCATION

The part played by great thinkers in influencing the course of educational history is not conspicuous at first sight. thus our public system appears rather as the resultant of various social forces, the outcome of the practical needs of each year and of the struggle between political and religious groups, than as the orderly expression of a consistent theory

Matthew Arnold in 1868 ascribes the difference which he discerned between Continental systems and our own to our disbelief in government and our belief in the machinery of government. "Our disbelief in government makes us slow to organize government perfectly for any matter. our belief in machinery makes us think that when we have organized a department, however imperfectly, it must prove efficacious and self-acting" Consequently "a number of grave matters affecting public instruction in this country . . . are at the present moment settled one hardly knows how, certainly without any care for the best counsel attainable being first taken on them". Yet the best counsel, if it was denied a direct part in shaping educational policy, did nevertheless indirectly con-

trol the tendencies which underlie the course of the administrative changes and practical stop-gap measures which are outlined in the preceding chapters. Without the definite formulation of aims by Mill, Bentham, and other writers, progress would have been more erratic, and experiments more costly, and their results less conclusive; because the problems of education are not to be solved by following the line of least resistance. This is merely another way of stating the fact that education is not only an art, but also a science.

The practical administrator or teacher, however much he may despise "theory", must perforce have formed a concept of the relation between the educand and the State (actual or ideal) of which the latter is to form a part. If this concept is in anywise complete or definite, he becomes a theorist, and certainly his theory will agree in the main with one of those which have already been proposed.

### **Stages of Educational Theory**

The conflict of opinion on educational matters during the nineteenth century has passed through three main stages. During the first, the necessity or otherwise of a universal compulsory education was in question: during the second, the divergent theories as to the relation between the individual and the State may be recognized in the controversy as to who was to control the educational system. During the last period the fundamental differences of aim remain as deep as ever, but compromises

have been effected, and more attention is being devoted to the process of education, i.e. to the training of teachers and to the nature of the subject-matter of instruction.

### **Recognition of the Need for Formal Education**

The need for any kind of popular instruction, whether public or private, was violently contested during the era of rapid industrial expansion. Thus, a member of Parliament, in opposing Whitbread's Bill of 1807, said: "However specious in theory the project might be of giving education to the labouring classes of the poor, it would in effect be found prejudicial to their morals and happiness; it would teach them to despise their lot in life, instead of making them good servants in agriculture and other laborious employments to which their rank in society had destined them, instead of teaching them subordination, it would render them factious and refractory, as was evident in the manufacturing counties; it would enable them to read seditious pamphlets, vicious books, and publications against Christianity; it would render them insolent to their superiors; and in a few years the result would be that the legislature would find it necessary to direct the strong arm of power towards them, and to furnish the executive magistrate with much more vigorous laws than were now in force".

This denial of the privileges of humanity to the poor was, however, really an innovation, as was pointed out by Lord Brougham in his great speech

of 1820. "It appeared that since the Peace of Amiens and in consequence of what had taken place at the French Revolution, the education of the poorer classes was objected to by some persons in this country, on the ground that it would make a man a worse subject. This was, however, a modern idea. He could show from historical authorities that the education of the poor was by no means a novel object, but had been held in early ages and by the wisest governments the best security for the morals, the subordination, and the peace of countries."

Adam Smith had already expressed the opinion that the public should establish in every parish or district a little school for the poor. The bulk of the population, he thought, should at least be able to read and account. The *Wealth of Nations* was written in 1796, before labourers and craftsmen had been to any large extent replaced by factory workers. The old regime had not quite passed away. Such mills as were in existence were run mainly by water power. There was no "black country" in 1770, and only slight differences existed between town and country life. As the economic revolution proceeded, however, the demand for popular education was much intensified. In 1816 Lord Brougham wrote: "There is the most unquestionable evidence that the anxiety of the poor for education continues not only unabated, but daily increasing; that it extends to every part of the country, and it is to be found equally prevalent in those smaller towns and country districts where



no means of gratifying it are provided by the charitable efforts of the richer classes"

This demand was more definitely expressed by the leaders of the Chartist movement, and in particular by William Lovett. The Chartists, among other democratic measures, desired a centralized educational system under the control of the people.

In general it has been noticed that the growth of political liberty has proceeded together with the increase of State regulation of educational facilities. Thus the first Reform Bill of 1832, which abolished rotten boroughs and extended the franchise to £10 householders and copyholders and £50 tenants-at-will, was followed by the education subsidy of 1833. The Elementary Education Act of 1870 was preceded by the second Reform Act of 1867, which extended the vote to better-class artisans. The municipal franchise was extended in 1888, and the Local Government Acts of that year established the County, County Borough, and Urban District Councils, which were soon invested with powers to aid technical instruction, and afterwards became the local authorities for all public education.

### **The Authority for Education**

The division of opinion as to the nature of the authority which was to undertake education appears in the controversy, of which an account has already been given. The following are some of the arguments which have been adduced in favour of State

and of private supply of schools Adam Smith thought that, in the parish schools already mentioned, the master should be "partly, but not wholly paid by the public, because, if he was wholly paid by it, he would learn to neglect his duties". The example of Scotland was cited, in which country "the establishment of such parish schools has taught almost the whole of the common people to read, and a very great proportion of them to write and account". These ideas were embodied by Lord Brougham in his proposals of 1820. ". . . the salary of the school-master should not be less than £20 or more than £30. This last point, he was aware, might stagger some persons, and he begged them to believe that he had not fixed so low a sum without mature consideration. It might be objected that this was a great deal too little; but he did not wish for sinecurists, or to take from them the desire of obtaining day-scholars. He deemed it important that they should find their own interests immediately concerned in this particular." He adds further on that this salary might be increased out of the rates at the desire of the householders, especially when "large parishes, such as Manchester or Liverpool, were desirous of securing the services of a school-master of superior talents—such a man as Joseph Lancaster".

Jeremy Bentham, in his *Principles and Morals of Legislation*, defines the responsibility of the parent and the State as follows: ". . . to instruct individuals in what manner to govern the conduct of those whose happiness, during nonage, is committed

to their charge is the business of the art of private education. The details therefore of the rules to be given for that purpose any more than the acts which are capable of being committed in violation of those rules, belong not to the art of legislation. . . . Some general outlines might indeed be drawn up by his (the legislator's) authority, and in point of fact some are in every civilized state. . . ."

According to John Stuart Mill, the function of the State was not to take charge of education, but to compel parents to do their duty in the matter, and if they were unable, to assist them by paying school fees. He considered that the liberty of the individual would be better safeguarded by a private than a public system. The individualist position is stated with moderation in the following quotation from Mill's essay, *On Liberty*:—

"Were the duty of enforcing universal education once admitted, there would be an end to the difficulties about what the State should teach, and how it should teach, which now convert the subject into a mere battlefield for sects and parties, causing the time and labour which should have been spent in educating, to be wasted in quarrelling about education. If the Government would make up its mind to require for every child a good education, it might save itself the trouble of providing one. It might leave to parents to obtain the education where and how they pleased and content itself with helping to pay the school fees of the poorer classes of children, and defraying the entire school expenses of those who have no one to pay for them. The objections

which are urged with reason against State education do not apply to the enforcement of education by the State, but to the State's taking upon itself to direct that education, which is a totally different thing. That the whole or any large part of the education of the people should be in State hands, I go as far as anyone in deprecating. All that has been said of the importance of individuality of character, and diversity in opinions and modes of conduct, involves, as of the same unspeakable importance, diversity of education. A general State education is a mere contrivance for moulding people to be exactly like one another, and as the mould in which it casts them is that which pleases the predominant power in the government, whether this be a monarch, a priesthood, an aristocracy, or the majority of the existing generation; in proportion as it is efficient and successful, it establishes a despotism over the mind, leading by natural tendency to one over the body. An education established and controlled by the State should only exist, if it exist at all, as one among competing experiments, carried on for the purpose of example and stimulus to keep the others up to a certain standard of excellence"

Considerations such as these were at the back of much of the opposition to State subsidies, and of the opinion expressed, in 1861, by the Newcastle Commission, in face of an alarming deficiency in the supply of schools, "that universal compulsory education is neither necessary nor desirable". The distrust with which the upholders of private initia-

tive viewed the increase of State action has also been expressed by Herbert Spencer in *The Man versus the State*. "Legislators who in 1833 voted £20,000 a year to aid in building school-houses never supposed that the step they then took would lead to forced contributions, local and general, now amounting to £6,000,000; they did not intend to establish the principle that A should be made responsible for educating B's offspring, they did not dream of a compulsion which would deprive poor widows of the help of their elder children; and still less did they dream that their successors, by requiring impoverished parents to apply to boards of guardians to pay the fees which school boards would not remit, would initiate a habit of applying to boards of guardians and so cause pauperization."

The final abandonment of the idea that a parent might be made responsible for his child's education is to be found in the Fee Grant of 1891 (see p 66). Our present policy is founded on an assent to the principle that "the child is worth a great deal too much to be used for improving the moral condition of the parents" (*The Children of the Nation*, Sir John Gorst).

### Theories of Society and their Bearing on the Aim of Education

By definitely assuming the responsibility of providing some kind of education for all, the public authorities have, of course, been obliged to decide

for the parents the nature of the education given, and hence also its aim. The aim presupposes some theory of the relation between the individual and the State, and such theories may usefully for the present purpose be divided into three groups according to the aims of education which they involve.

### THE CHIEF AIMS

1. Education is intended for an existence in the present state of society, considered as fixed. The connection with the past is emphasized, and this fixed state of society is preserved and perpetuated. This may be called the "status quo ante" theory.

2. Education is intended to secure efficiency in a competitive and freely changing society. It should be of such a nature as to leave it open to individuals to occupy a variety of positions. The best results will be obtained by free and universal competition together with a minimum of State control. This may be called "the competitive theory".

3. The aim of education is to produce the citizen of a more or less idealized community, the Utopia of the future which is to be highly organized and conducted on a basis of co-operation rather than competition. These groups correspond roughly to the division of political thinkers into Conservatives, Liberals, and Socialists. All three find partial expression in modern systems of education.

## CONSERVATIVE AIM

The earliest, as well as the most easily practised, type of education was that which prepared the child for a predetermined position, in a fixed state of society. Such were most of the mediaeval systems, which have been classified by Rosenkranz in his *Philosophy of Education* as "national". They are pervaded by the idea of a definite nationality with its customs and class distinctions, and generally (though not always) restrict the freedom of the individual by training him for some special rank of society, such as the warrior class, the craftsman and labourer class. The class idea was formerly predominant in England, thus, Locke's well-known treatise, the *Thoughts on Education*, was written as a guide to the education of a member of the hereditary governing class. He has put on record an equally definite scheme for educating the children of the poor in workhouse schools. The same idea that the present state of society should be maintained by education was accepted with confidence by educators of the early nineteenth century. Thus, in the introduction to Miss Edgeworth's *Parent's Assistant* (1822), it is stated that. "At present it is necessary that the education of different ranks should in some respects be different, they have few ideas, few habits in common, their peculiar virtues and vices do not arise from the same causes, and their ambition is to be directed to different objects. But justice, truth, and humanity are confined to no particular rank and should be enforced

with equal energy upon the minds of young people of every station."

Clearly, early vocational training is an important part of the "status quo" system, and when combined with culture for enjoyment and the moral and religious training which must enter into all systems, it is undoubtedly calculated, under circumstances of social stability, to produce a happy and efficient nation. It was undermined, however, in several directions by the misery, unrest, and new hopes of the industrial revolution.

### COMPETITIVE AIM

In the first place, the substitution of factories for craftsmen has furnished the *reductio ad absurdum* of vocational education for the large number of people who are employed by the former. The apprenticeship for a trade had many of the components of a liberal education, whereas the so-called "factory apprentices" were so in name only, and their work required no long period of careful training.

It was thought that the "greatest good of the greatest number" would be automatically attained by the unlimited free competition of qualified individuals. The duty of the State was chiefly to preserve outward order in the struggle. These were the fundamental ideas of the competitive or "laissez-faire" school of political economy associated with the name of Jeremy Bentham, and to some extent with that of John Stuart Mill. The



education required in a state of economic flux would naturally differ from that required in a more permanent, and, so to speak, crystallized condition of society, inasmuch as in the former case the individual would have to be enabled to compete as strenuously as possible in any (unknown) occupation which he might, in adult life, choose to follow. It would still be practical and utilitarian, but would have to cover a much wider range of activities. It is noteworthy that Bentham would not altogether leave the ideal middle-class schools to be supplied by the power of free competition. He sees that it is necessary to make sure that the competing adults are really well qualified, and that to attain this end a moderate amount of State action is necessary in order to supplement the deficiencies of the private schools. An interesting scheme of instruction for a State middle-class school is described in detail in his *Chrestomathia*. The first stage of instruction included the elementary arts—reading, writing, and arithmetic; and several sciences—mineralogy, botany, and zoology—were to be exhibited from the most familiar points of view. Geography, geometry, historical chronology, &c., also found a place. A good deal of specialized scientific instruction was introduced in the second stage—thus chemistry was subdivided into mineral and animal, and physics into hydrostatics, acoustics, and many other branches which presumably were to be separately taught. This knowledge was applied to gardening, land surveying, mining, &c., in the third stage; while, in the

fourth, the pupils' time was to be devoted mainly to applied sciences, which included a long list of those which relate to the preservation of health—anatomy and pathology, materia medica and “phthisozoics”, which is the “art of destruction applied to noxious animals”. In the fifth and sixth stages, science was freely applied to “technology, or arts and manufactures in general”, and the science of note-taking was applied to recapitulatory lectures. A pupil instructed in his Chrestomathic school will, he says, “have an advantage amounting to a premium over all others, although, of course, this advantage will not persist when the instruction becomes universal”. The whole scheme, unpractical as it is, is interesting as showing the level of efficiency which Bentham considered was demanded by the competitive principle.

#### CO-OPERATION AND THE SOCIAL AIM

As the century advanced it began to be seen that competition, with a minimum of State control, was by no means having the desired effect. The nation had not become a crowd of strong, qualified persons, each securing, by his efforts, the good he desired, and by so doing, bringing much benefit to the State.

The individual worker became more and more helpless, and less able to hold his own against the strong currents of economic forces. He was often carried off his feet by these currents before he had received a fair start, and was afterwards

punished for a failure which might be in a large measure due to an ignorance of the complex conditions of civilized life. Common humanity demanded a tempering of the rigour of economic laws and an amelioration of social conditions. This would carry with it a corresponding alteration in the aim of education

An ideal state in which co-operation should replace competition was early described by Robert Owen in his *New View of Society*. In this state the relatively stable combinations of capital should play a providential part towards their employees. Over all should preside the central government, whose function it was to assist the industrial groups in regulating the supply of labour, and if necessary to provide for the unemployed. Education was to be national, and offered to all as a right. "The national plan for the formation of character should *include* all the modern improvements without regard to the system of any one individual, and should not *exclude* the child of any one subject in the empire. Anything short of this would be an act of intolerance and injustice to the excluded and of injury to society."

That character was completely formed by environment and nothing else, was a principle which Owen regarded as self-evident. "This principle the author stated that he had had examined, scrutinized, and fully canvassed by some of the most learned, intelligent, and competent characters of the present day." The principle in question is printed in the preface to *A New View of Society*.

"Any general character, from the best to the worst, from the most ignorant to the most enlightened, may be given to any community, even to the world at large, by the application of proper means, which means are to a great extent at the command and under the control of those who have influence in the affairs of men." And further "Children are without exception passive and wonderfully contrived compounds, which by an accurate previous and subsequent attention, founded on a correct knowledge of the subject, may be formed collectively to have any human character". This *a priori* opinion led Owen to throw the responsibility for all evil upon the State or its more influential members. "From the earliest ages", he says, "it has been the practice of the world to act on the supposition that each individual man forms his own character, and that therefore he is accountable for all his sentiments and habits, and consequently merits reward for some and punishment for others. . . . This error cannot much longer exist; for every day will make it more and more evident that the character of man is without a single exception formed for him; that it may be, and is, chiefly created by his predecessors; that they give him, or may give him, his ideas and habits, which are the powers that govern and direct his conduct. Man therefore never did, nor is it possible he ever can, form his character."

In consequence of these opinions Owen assigned a great importance to education, and did not lose the opportunity of putting them into practice among the community at New Lanark who were

employed by himself and his partners. In the new school, built in 1816 and carried on at a cost of about £700 a year, the moulding of character was not effected by any repressive discipline. Owen had studied the doctrines of Rousseau, and in accordance with these discountenanced the use of prizes and punishments. He relied rather upon inducing a healthy public opinion in the community, to which the children as well as their parents would, it was thought, in the end conform. Peaceful persuasion was the rule, and not compulsion. Precepts were freely used; the children were repeatedly enjoined from the age of two to consider their companions' happiness as their own. Owen had a strong belief in the moral effect of happiness and interest. Therefore the lessons were made as pleasant as possible—with paintings, maps, and specimens from the gardens and fields—and music and dancing were made a special feature of the schools. A visitor has recorded the pleasing impression left by the classes of 80 to 100 children clad in cotton tunics or plaid kilts, and dancing cotillions, strathspeys, or reels to the music of an orchestra. The useful arts of reading, writing, &c., and of managing a house were not neglected. "The children were taught to read well and understand what they read . . . to sew, cut out and make up useful family garments . . . to prepare wholesome food in an economical manner, and to keep a house neat and well arranged." It is noteworthy that no manual training was given with a view to subsequent employment in the mills, nor, although

Jeremy Bentham was made a partner in 1813, was any bias given to the schools in the direction of applied science.

It will be seen that the whole tendency of this education was to produce a race of altruistic, happy, and interested people well prepared for life in a more humane and well-ordered state than was in existence at the time. Owen had no doubt, however, that by an education of this kind the necessary improvement in human nature could be effected in one generation. "Henceforth," he says, "all the irritating and angry passions arising from ignorance of the true cause of bodily and mental character will gradually subside and be replaced by the most frank and conciliating confidence and good-will." These hopes he retained unimpaired to the end. "When he published his *New View of Society* he looked for the regeneration of the world to begin on the morrow. Throughout his long life that high vision, ever receding as he advanced, was still before his eyes: and he died at the age of 87, happy in the belief that the millennium was even then knocking at the door."<sup>1</sup>

About the middle of the century John Ruskin began to proclaim a political economy which is more in accord with the highest ethic than is that which assumes self-interest as the mainspring of human action. Material production was no longer to be regarded as the end, but only as the means, of human action. "Consumption absolute", he says, "is the end, crown and perfection of production,

<sup>1</sup>*Life of Robert Owen*, F. Podmore.

and wise consumption is a far more difficult art than wise production. . . . Perhaps it may even appear after some consideration that the persons themselves *are* the wealth. . . . In fact it may be discovered that the true veins of wealth are purple—and not in Rock, but in Flesh—perhaps even that the final outcome and consummation of all wealth is the producing as many as possible full-breathed, bright-eyed, and happy-hearted human creatures.”

This reversal of the relative importance of life and property is of course of the greatest significance to the aim of education. In *The Stones of Venice* (1853) Ruskin calls attention to some of the faults of the education of that time, and particularly to its neglect of the principles of good citizenship; and in the *Political Economy of Art* he emphasizes the duty of the State. “The first interference of Government should be in education. In order that men may be able to support themselves when they are grown, their strength must be properly developed while they are young, and the State should always see to this—not allowing their healths to be broken by too early labour nor their powers to be wasted for want of knowledge.”

His ideas were more definitely stated in the preface to *Unto this Last* as follows—

“First, that there should be training schools for youth established, at Government cost and under Government discipline, over the whole country; that every child born in the country should, at the parents’ wish, be permitted (and, in certain cases, be under penalty required) to pass through them; and

that, in these schools, the child should, with other minor pieces of knowledge hereafter to be considered, imperatively be taught, with the best skill of teaching that the country could produce, the following three things.—

- (a) The laws of health, and the exercises enjoined by them;
- (b) Habits of gentleness and justice; and
- (c) The calling by which he is to live."

One of the most striking features of this education as compared with that proposed by Bentham, is its simplicity. In some respects it closely resembles that of the "status quo" type at its best. Had Ruskin lived in simpler and happier times he would no doubt have been a conservative in education as in other things. The conservatism, however, with which he began life was broken down by a dissatisfaction with the actual state of affairs—a dissatisfaction not only based, like that of Owen, on humanitarian, but also on æsthetic grounds. Owen, who had made his position by commerce and the direction of industrial concerns, placed his Utopia in a manufacturing era, substituting the happiness for the previous misery of the work-people.

Ruskin's highly cultivated artistic perceptions were shocked at the desolation brought upon the land by a hasty exploitation of the coal supplies. He regarded this desolation as a by-product of the blind competitive struggle. The way in which his dislike of the latter was thus accentuated appears



from the following passage "All England may, if it so chooses, become one manufacturing town, and Englishmen, sacrificing themselves to the good of general humanity, may live diminished lives in the midst of noise, of darkness, and of deadly exhalation. But the world cannot become a factory nor a mine      So long as men live by bread the far-away valleys must laugh as they are covered with the gold of God, and the shouts of His happy multitudes ring round the wine-press and the well."

Agriculture and the ancient trades, he thought, and not the tending of machines, bring man to his full development. The boy is to be taught early the calling by which he is to live, since, provided the work was useful, and not done for the sake of the reward, its exact nature was a matter of indifference to the main object of the nation—"the manufacture of souls of a good quality". Ruskin himself found it impossible to put back the clock of material progress, for his attempt to re-establish some ancient crafts was unsuccessful. At the present day many who would otherwise unreservedly accept Ruskin's views think that the gifts of applied science, meaning as they do economy of natural power and human effort, are good things in themselves, and if the effects are bad it is our use of them which is at fault. It is perhaps possible to accept modern conditions and at the same time keep in the forefront of our thoughts "the manufacture of souls of a good quality"

The simple components of education as stated by Ruskin need to be supplemented on the in-

tellectual side. According to the Herbartian psychology the "good-will" is closely connected with a well-equipped mind. That the ignorant man cannot be truly moral seems a hard saying, and a close investigation of Herbart's "five moral ideas" is necessary in order to understand it. It implies a fearless belief in the ultimate value of all true knowledge for development. It seems to show also how the ideals of Ruskin need not be abandoned under modern conditions. "Plain living and high thinking" can be combined by the members of a complex, as by those of a simple society, but the rendering of the individual capable of preserving his balance under present conditions requires a more careful selection of the components of education.

If society is to be based upon willing co-operation, a definitely social aim must be given to education, and in order to co-operate intelligently the individual must understand at least the gist of what is going on around him. Monroe, in his *Text-book of the History of Education*, expresses the citizenship ideal as follows: "In the old view the function of education was to develop the ability, improve the habits, form the character of the individual so that he might prosper in his life's activities and conform to certain social standards of conduct. The idea emphasized in the citizenship conception is that individual and social welfare, happiness, and righteousness depend more largely than ever before recognized upon the relations existing between persons and classes in institutional life."

There is no general agreement as to how far these social ideals can be usefully set before children of elementary school age. The obvious way out of uncertainty is to continue a part-time education up to the age of sixteen, seventeen, or eighteen, and the opinion is gaining ground that without some such extension the fruits of the education given before the age of fourteen cannot be fully gathered. According to Kerschensteiner, *Social Education*, "it is impossible to give a definite direction to the character at the age of thirteen or fourteen by means of the primary school". The deepest syntheses of human as well as those of religious experience only come with adolescence, or later. A preparation for these can, however, certainly be made in the elementary school—the foundations of an idealistic view of life may be, and are being, laid by teachers in this grade. According to Herbartian ideas also, the hard but bracing pursuit of truth in the regions of science, the discovery by actual trial and error of the true symmetries of artistic and constructive work, must form an important part of this preliminary training for the average child. Thus every teacher can with full confidence conduct his training a part, if not the whole, of the way, i.e. as far as the state of development of each child permits, towards the goal of true education as defined by Ruskin, which is "to make people not merely do the right things but enjoy the right things—not merely industrious but to love industry—not merely learned but to love knowledge—not merely pure but to love purity—not merely just, but to hunger and thirst after justice".



## APPENDIX

TABLE I (Chapter I)  
School Accommodation in 1833

	1		2		3		4	
	Endowment		Subscription		Payment from Scholars		Subscription and Payment from Scholars	
	Schools	Scholars	Schools	Scholars	Schools	Scholars	Schools	Scholars
Infant Schools	30	1,450	197	13,081	2,350	40,721	408	33,753
Daily "	4076	152,314	2,632	165,436	26,791	691,728	2487	178,464
Sunday "	571	39,533	15,244	142,377	101	5,718	912	80,262

From *Special Reports of the Board of Education*, Vol II, 1898 (Sadler & Edwards).

Leaving out of account the Sunday schools, it will be seen that there were about 540,000 children in those schools which were maintained either by endowments, or wholly or partly by subscriptions (columns 1, 2, 4). About 40,000 of these children went to the endowed grammar schools of the upper and middle classes. If these are subtracted it is seen that 500,000 working-class children attended the better kind of schools

The total number of children attending private schools is about 730,000. Of these probably all the infants and about half of the older scholars were the children of poor parents. If this number (290,000) is added to the 500,000 it is seen that the number of the working-class population at school is 790,000, and the percentage of the working-class population at school is 6.5. The percentage of the total population who were at school works out at 8.8.

It was estimated by Dr Farr in 1870 that in every thousand of the population there are 75 between 3 and 6 years of age, and 135 between 6 and 12, i.e. 21 per cent of the population are of the school age so defined. This number has been taken as the basis of comparison between the possible and actual number of children at school in 1833 and 1851. The fact that this ratio works out at over 100 per cent for the middle and upper classes may be explained as due to the duration of school life beyond the age of twelve.

TABLE II (Chapter I)

## School Attendance in 1833 and 1851

	1833	1851
Total estimated population .	14,400,000	17,927,609
Population of middle and upper classes .	2,000,000	2,489,945
Population of working classes	12,400,000	15,437,664
Population between 3 and 12 of the middle and upper classes	420,000	522,888
Population between 3 and 12 of the working classes ..	2,604,000	3,241,919
Percentage of children of the middle and upper classes at school to population of the same class between 3 and 12 .	114 6	104 4
Percentage of the children of the working classes at school to population of the same class between 3 and 12 ...	30 5	49 2

*Special Reports, Vol. II (see p 200)*

TABLE III (Chapter I)

## Government Grants before 1860

Year	Grant.	Year.	Grant
	£		£
1839	30,000	1849	125,000
1840	30,000	1850	125,000
1841	30,000	1851	150,000
1842	40,000	1852	160,000
1843	50,000	1853	260,000
1844	40,000	1854	263,000
1845	75,000	1855	396,921
1846	100,000	1856	451,213
1847	100,000	1857	541,233
1848	125,000	1858	663,435

*Special Reports, II.*



TABLE IV (Chapter II)

**Average Salaries of Masters and Mistresses**  
from all professional sources whatever (including Government grants).

Year	Certificated Teachers			Uncertificated Teachers			Simple Inspection Schools		
	Mas- ters	Mistresses		Mas- ters	Mistresses		Mas- ters	Mistresses	
		For Girls	For In- fants		For Girls	For In- fants		For Girls	For In- fants
1855	£ 90	£ 61	£ 57	£ 59	£ 34	£ 31	—	—	—
1860	94	62	58	60	36	34	47	28	27
1865	87	55	52	59	38	30	53	30	33
• 1870	96	58	56	75	37	30	54	32	32

*Special Reports, Vol II.*

TABLE V (Chapter II)

**Income of Schools Inspected for Annual  
Grants in England and Wales**

Source	1851	1860	1865	1870.
Endowment	£ 13,584	£ 37,820	£ 36,473	£ 47,558
Voluntary subscription	82,452	241,473	310,671	418,839
School pence	73,145	250,886	349,742	502,023
Other sources	14,890	63,912	88,068	28,951
Government grants brought to account	—	—	322,682	528,040
Total	184,071	594,091	1,107,636	1,525,411

*Special Reports, II.*



TABLE VI (Chapter III)  
Kinds of Schools in 1870 and 1895

	Number, 1871	Number, 1895
(1) Church of England	6724	11,830
(2) Wesleyan	incl in (3) —	482
(3) Roman Catholic	383	990
(4) British, undenomina- tional, &c	1691	1,177
(5) School Board	incl in (4) (82)	5,260
Total	8798	19,739

TABLE VII (Chapter III)  
School Attendance in 1871 and 1895

	1871.	1895
Number provided for (in millions) ...	2.01	5 94
Number on the Registers (in millions) .	1.80	5.30
Average Attendance (in millions)	1.23	4.33

*Special Reports, I.*